

Annual meeting with the financial market

Speech by the Chairman Professor Paolo Savona

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CONSOB
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PER LE SOCIETÀ E LA BORSA

Speech by the Chairman to the financial market

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1 The operational framework in which Consob moved

Consob's Report on the year 2020, which we are presenting today, was forwarded to the Minister of Economy and Finance at the end of March pursuant to Law 216/1974 and published in full on our website. It reports on the activity carried out last year and in the early months of 2021, a period of time characterised by the constraints posed by the health crisis on the remote services of the 660 people working in the institution, the burden of a regulatory activity imposed by the economic and financial effects of the pandemic and the adaptations required by the new market conditions. The staff who, under difficult circumstances, have remained at the service of the community in a spirit of adaptation and professionalism, deserve our heartfelt thanks.

The scale and variety of the activities carried out in implementation of the strategic lines – detailed in Part A of the Report – do not lend themselves to a synthesis and require a detailed examination of the contents; to facilitate its reading, this year the presentation is in a leaner form than in the past. However, some indicators can provide an overview of the extent and multiplicity of the tasks performed: in the year under review, the number of Commission meetings was 110 and the cases examined 1,297; the resolutions adopted were 459, including the 26 decisions to address the difficult situation created on the market following the health pandemic, the 237 closures of websites that were collecting savings illegally (out of a total of 467 sites closed from 1 July 2019 to 10 June 2021) and the 56 sanctioning measures for violation of financial legislation. The Alternative Financial Dispute Resolution Scheme (ACF) settled 1,772 appeals.

During the year, the work within ESMA aimed at creating a common basis of regulatory treatment, with a view to creating also a European Union of capital markets, required particular commitment; in this regard, the anomaly of the void in the institution's top management should be noted which was caused by the complexities created in the appointment of the Chairman, who ceased to hold office several months ago. A strong commitment was also required to follow the complex work on the development of ESG regulations (*governance* for environmental

and social protection) for a green, digital and resilient Europe and to incorporate the technological developments in international financial markets into existing legislation; the extensive involvement of the competent national authorities was appreciated for these initiatives. It is to be hoped that similar coordination can also be achieved with the European prudential supervisory authorities, especially during important events for the proper functioning of the Italian financial market. In the second part of the year, a commitment was added to manage the presence of English companies operating in Italy, or eager to enter our market, following the exit of the United Kingdom and Northern Ireland from the European Union.

During the first few months of 2021, following the consent given by the Presidency of the Council of Ministers to the proposal put forward by Consob, the long administrative process to transpose the criteria set out in the Bank of Italy's similar contract into our terms and conditions of employment, as provided for by our founding law, was completed; a no less extensive process is now underway to implement parity. Non-objection was also given for the transfer of the Italian Stock Exchange Group from the London Stock Exchange Group to the Euronext Group, which will be followed by continuous monitoring by Consob of the operational impacts of the operation, in implementation of the Integration Plan and the Business Plan on a federal basis as provided for by the shareholders' agreement. Finally, a first concrete step was taken to control the issuance and trading of digitised financial instruments, experimenting with the use of a leading Italian company's *blockchain* access key in preparation for the issuance of *security tokens*.

In this complex action we had constant consultations with the MEF (Ministry for the Economy and Finance), the Bank of Italy, AGCM (the Italian Competition Authority), IVASS (the Insurance Supervisory Authority), COVIP (the National Authority responsible for supervision of Italian pension funds), the Criminal, Civil and Administrative Judiciary, the Attorney General, the Financial Police, the Postal Police and the OCF (Supervisory Body and keepers of the single register of Financial Advisers) and benefited from the cooperation of COMI, the Market Operators and Investors Committee. Our heartfelt gratitude goes to all these institutions.

2 A difficult year: savings and exports have borne the brunt of the crisis

Due to the pandemic, 2020 was one of the worst years experienced by Italy on an economic and social level since the end of the Second World War. The European Union and Italy activated a wide range of economic policy instruments to control the effects of the emergency situation, also involving existing structures in new tasks. After recording a significant fall in GDP, the country began moving towards economic recovery from the second half of the year onwards and, more clearly, in the early months of 2021, and is showing its willingness to address unresolved problems, including the change in attitude of the European Union's fiscal policy, a necessary basis for cohesion between member countries.

The year's results confirmed the assessment expressed in previous Speeches that savings and exports are the two pillars of the country's social and economic strength. The investor protection put in place by public institutions, including Consob, follows rules that have been tried and tested over time, which however require updating in light of technological innovations in the financial field; however, the strongest protection remains its anchor to real business activity, whose progress is shaped in Italy by the trend in exports. Private consumption and public expenditure, on the other hand, show that they do not have the momentum they have in other important foreign economies.

The Italian household savings rate compared to disposable income grew by 50% in the year but, excluding savings invested in listed companies, the return remained rather low, close to zero. Given the size of financial assets in the hands of households, each percentage point of remuneration can be estimated at around 30 billion euro, almost 2% of GDP, the size of a good fiscal manoeuvre in the past. Given the management fees, savings have contributed significantly to sustaining market stability, without however producing the real growth expected from their 'euthanasia' hypothesized by Keynes, although this effect is today the result of a crisis that arose for particular and contingent reasons.

Exports recorded difficulties, decreasing in volume by about a seventh compared to 2019, due to the concurrent effect of the decline in world demand and obstacles to domestic production due to *lockdown*. Imports fell more sharply, allowing our foreign trade bank account balance to remain positive, increasing slightly in relation to GDP. During the year, Italy's international investment position improved further, showing a profit for the first time in three decades. The international financial market has only partially registered this favourable structural position of our country. During the first quarter of 2021, world trade rose to levels above pre-crisis ones and our exports continued at double growth rates in comparison, thus confirming the resilience and dynamism of our companies in the sector. Even the balance of the financial account with foreign countries, which had recorded a slight negative balance in 2020, also showed positive figures, confirming its role as a pillar of the stability of our savings.

To cope with the economic and social difficulties public debt has grown greatly, albeit in different ways to those allegedly required by a state of emergency. However, confidence in the Italian economy's ability to react has increased, as testified by the significant reduction in the spread between BTP and BUND interest rates. This result is also an outcome of decisions taken by the ECB to purchase significant volumes of government bonds and by the European Commission to suspend, albeit temporarily, the Stability Pact and launch the *Next Generation EU* Plan (NGEU). We agree with the appraisals given for all these decisions on the structural improvement of our real growth rate and, consequently, of the systemic stability of our economy.

However, to continue with the relaunch of our production we must supplement the decisions taken so far to incentivise companies' risk capital in order to improve their financial leverage and make them more willing to undertake new initiatives. An important opportunity is offered by the tax reform invoked for some time and reiterated in the framework of the PNRR, the National Recovery and Resilience Plan in implementation of the

NGEU, if it is assigned the task of considering productive demands on the same level as ethical ones in appraisals of distributive equity.

The awarding of the 2020 Nobel Prize in Economic Sciences to Robert Wilson and Paul Milgrom again brought the principle of 'Pareto efficiency' to the attention of the ruling class, according to which principle there is a point in the redistribution of income at which the improvement of the well-being of some cannot be achieved without causing the deterioration of the well-being of others. Obviously this principle applies both to present and future generations. Pareto efficiency is reached much quicker when real growth is lacking, as it was following *lockdown* due to the health crisis; therefore, we must wait for it to re-emerge following the recovery currently in progress.

State intervention for social purposes has reached unusual forms and levels over this year, without however alleviating the pressure on public resources by citizens; this should not be surprising because the rational part of human action pushes to choose the best result at the lowest cost. Private companies, especially exporters, are forced by competition to solve their problems quickly, at risk of exclusion from the market; this capability of theirs represents a cornerstone of growth and a foundation for the proper functioning of democracy, which has the power to correct income distribution determined by productive and commutative activity through regulations, duties and taxes. When these forms are insufficient and savings are not being used by private individuals, the State resorts to debt, but not always following a well-founded assessment of the inter-generational redistributive effects.

Recognising that market and democracy control the respective functions they perform and a precise knowledge of the value to be attributed to each, is an indispensable step towards the proper functioning of the economy and society, whose care must be entrusted to a good civic education system.

3 The emergence of financial innovations

Important official documents have thoroughly analysed the difficult internal, European and international framework within which we must all move. We share the diagnosis put forward and express the hope that it will be adopted by public opinion and transmitted to the mandate it gives our political forces.

We intend, within our area of competence, to integrate this diagnosis with an indication of the role that the creation in articulated forms of new virtual instruments, such as cryptocurrencies, and the interchangeability between them and traditional instruments, plays in the savings market. The effects on investor protection and on actual income distribution appear to be significant and need to be the subject of a precise understanding in order to urgently follow up on a regulation that fills the gaps the latter reveals.

On the basis of the metric offered by the legislation in force, it is no longer possible to distinguish, with technical and legal certainty, what money and financial products legally consist of nowadays, a content that appears interrelated due to the connection guaranteed by the conversion platforms between virtual and traditional instruments. The market uses a different metric to existing legislation, which needs to be integrated into this latter. The activity in movable forms that takes place in the infosphere is also increasingly interfering with international relations and geopolitical balances, whose stability plays an important role for monetary and financial exchanges, especially as a result of the growing weight they carry in a political habitat no longer at the best of the results of peace and prosperity achieved in the last thirty years of integration and cooperation between States.

A necessary step to focusing on what is to be regulated is to clarify the meaning of the terms used. Here we have resorted to the usual dichotomy between traditional instrument and virtual instrument; the term digital is also used for the latter, which however embraces both the now traditional forms (such as credit

cards, ATM dispensers of physical money and online payments), as well as the most recent forms of payments or exchanges in crypto-instruments; the latter create new problems to the functioning of the markets due to the relationships they establish with traditional and digitised instruments, making their regulation and surveillance difficult, with distortive consequences on production and exchange activity, as testified by the fact that just one Bitcoin was able recently to purchase a large electric car and shortly afterwards had lost half its purchasing power.

Financial informatics is a prodigious lamp from which the Genie has escaped.

The authorities will not be able to put it back inside, because it acts in the immaterial sphere (or infosphere) that can only be controlled by changing the information exchange protocol, that is, by fragmenting the unity of the world market and thus reducing the rate of international competitiveness. The pyramid of bits, the unit of measurement of information technology, has grown enormously and penetrated the market of traditional instruments, losing the territorial contact implicit in their treatment on a legal basis.

In current conditions, the authorities can intervene by becoming active players in the infosphere, i.e. by using the advantages of digitised techniques themselves; their action will be more effective if they cooperate with each other but, in order to achieve this goal, they must first understand the limits and possibilities involved in using the new technologies that Data Science and Network Science are developing at an increasingly fast pace. Under prevailing market conditions, the warnings alone about the risks run by investors or the actual prohibitions are ineffective.

The current system of crypto-assets is based on the prevailing conviction and convention between private individuals, who ignore the central role that the legal nature of money as the only means of exchange and debt relief plays in the proper functioning of the market. The desire expressed in various forums

by government authorities to seize the opportunities of technological innovations should not be understood as a condescension towards the loss of market transparency, but a desire to recover it using the same financial innovations; therefore, the favourable attitude to new techniques must be accompanied by clear rules on the emergence and trading of crypto-assets and on their interweaving between traditional monetary and financial assets/liabilities, whether digitised or not, as an indispensable guide for operators managing deposits and currency and savings.

The creation by computer of private fiduciary money offers those doing it (the so-called 'miners') the possibility of having purchasing power. Richard Rasmussen, an economist whose analyses span a wide spectrum of biological and social matters, wrote that «it would be too ridiculous to go about seriously to prove, that wealth does not consist in money, or in gold and silver; but in what money purchases». The redistributive function, typical of democracy, and the productive-and-commutative one, typical of the market, are altered by the creation of digitalised purchasing power, even more so if placed in a perfectly decentralised accounting system. Despite their importance in social balances, the ethical implications of financial innovations on the functioning of democracy have so far received less consideration than other aspects of the problem, such as digital divide, privacy and the right to free private initiative.

At the time of emergence, the purchasing power of virtual instruments is non-existent, not having an economic relationship of debit and credit behind them, like any other transaction that takes place on the market, including the creation of legal tender that has a public issuing institution as debtor. The debit and credit relationship only materializes when there is an expectation that someone will spontaneously accept the virtual instrument created and can resell it to others at the appropriate time. Only exchange operations carried out after having 'mined' crypto-currencies generate a relationship to be recorded in double-entry accounting, as Friar Luca Pacioli taught us half a millennium ago; but the real responsibility of the 'secondary' debtor still remains uncertain, having at its root the absence of a 'primary' debtor.

The change affecting the functioning of the market in general is profound. The spread of virtual instruments has prompted the emergence of the aforementioned 'technological platforms' that allow faster and less expensive methods of access to payment and securities trading services than those offered by banks and other intermediaries. The safekeeping and exchange functions they initially carried out have evolved to accommodate increasingly complicated and complex transactions, including the granting of loans guaranteed either with their own crypto-currencies or other crypto-currencies or the stipulation of derivatives contracts using crypto-currencies as collateral, even for several transactions of the same type. These new market segments are evolving rapidly and the experience before the 2008 crisis seems to be repeating itself, when derivatives contracts developed until they reached a size ten times that of global GDP, taking on complex forms that received a high rating. Despite the necessary distinctions, something similar is expected to be happening in the market for virtual money and financial products, especially encrypted ones.

Rather than from the actual instrument, the problem arises from the technology used, the blockchain or decentralised accounting chain. Its original form, that used by Bitcoins in 2009, is a circuit whose information remains confined exclusively between holders of the encrypted instrument, identified by a numerical code; transactions are certified by the mechanism itself, without the intervention of an external entity (such as banks for deposits or financial intermediaries for debt securities).

As far as our knowledge extends on the state of hacking techniques, the original blockchain is impenetrable, while the one used by other crypto-currencies is not, as testified by facts that have already happened involving significant amounts; these other forms have reached sophisticated solutions to protect themselves from external attacks, however they are still penetrable but, in the conviction of those who use them, the risk is compensated by the advantages gained to achieve other purposes, such as creating so-called smart contracts. However, the fact remains that they are still within the boundaries of uncertainty as to whether they are within

or outside the scope of legality, especially if they include the use of crypto-currencies. To portray the breadth of the possibilities developed by decentralised accounting technicians, the acronym DLT (Distributed Ledger Technology) is used, of whose real contents only the experts (the professionals) are aware, but not the ordinary customers (retail) who, if they access it, are in fact less protected.

The use of these tools in closed forms outside the participants of the initiative (permissionless) precludes private (such as that carried out by the boards of auditors and certification companies) or public (by the supervisory authorities) supervision. Without adequate safeguards (rules and bodies), this results in a deterioration of market transparency, the basis of legality and rational choices by operators. Among the well-known negative effects is the shielding that these techniques allow for criminal activities, such as tax evasion, money-laundering, terrorist financing and kidnapping. The recently ascertained concentration in Bitcoin possession may reflect this aspect of the problem.

The river, now full of virtual instruments, has been divided into many and varied streams: the Internet, which is certainly not the cradle of certainties, attests that there are between four and five thousand crypto-currencies in circulation (in the form of stablecoins, but largely floating) which operate more or less undisturbed; if the experience carried out over a short time by Consob, in obscuring hundreds of websites in Italy that were illegally collecting savings, is applied to them, the resulting picture appears worrying.

For Italy, the problem raised has a particular annotation compared to other countries due to the existence of a rule at constitutional level that attributes the task of encouraging and protecting savings in all forms and of regulating, coordinating and controlling the granting of credit to the Republic. It would be inappropriate to assign content that also embraces virtual instruments to the specification 'savings in all forms' and credit to protect, without going through specific regulations.

An important task entrusted to Consob is to guarantee complete and reliable information, as an indispensable condition for the proper functioning of the financial market, a necessary, although not sufficient, condition to encourage savings and anchor them to real activity; this is an important frontier to be reached, but it moves forward continuously. The task becomes increasingly difficult due to the enormous amount of information that is formed daily and that can only be managed using the collection and processing techniques made available by data and network Science, because every day a mass equal to 2.5 quintillion bytes is produced (10^{18}), which can only be processed with scientific methods, since it cannot be done with the human mind alone.

Added to these objective difficulties for the supervisory authorities were the recent judgments of the European Court of Justice of 2 February 2021 and the Italian Constitutional Court of 30 April 2021, which recognised «the right of anyone subject to a procedure that could result in the imposition of sanctions of a punitive nature, to not be obliged to provide the requested information to the supervisory authorities», in the name of the constitutional principle of fair trial. However, these judgments do not reduce the operators' obligation to provide information to the market. The constitutional value of fair trial must be placed on the same footing as that of the protection of savings.

The need to lay down rules in this area is not only felt by the supervisory authorities, but also by the more attentive market operators, who recognise the existence of risks to their cryptocurrency business arising from uncertainties or decision-making inaccuracies; these often arise from albeit noble ethical demands, on which discussions abound and they often end contrary to the use of innovations in finance. As history teaches, every technological revolution causes cultural and social consequences, but without stopping its affirmation; the development of virtual instruments seems to confirm this experience.

If regulation were merely to put sand in the mechanism and, as is widely discussed, satisfy itself in taxing the gains made,

the consequence could be the continuation of their spread which could lead to a new market crisis. If this happens, the responsibility for the consequences suffered by investors could fall on the State, as has already happened in the past, due to the silent or obvious legitimization of their existence and the awareness that market manipulation can be achieved through financial innovations.

The security of the techniques used remains the uncovered side of all digitisation processes and it is therefore reasonable to consider cybersecurity a 'public asset', that is, a productive and social infrastructure placed at the service of general interests, but useful for every citizen. Therefore, the existence and functioning of a security system, even if left to private individuals, must be guaranteed and overseen by the State, which must nevertheless bear in mind that the diffusion of digital techniques in finance poses specific needs that must be addressed globally, otherwise its effectiveness will be reduced. The issue of cybersecurity encompasses political problems of even broader content, the solution of which cannot be achieved at national level and requires close international cooperation, that is, the emergence of a 'global public asset', as were the IMF, the UN and the WTO. The part of the Bretton Woods Agreement closest to the solutions to the problem raised here of the interchangeability between different national currencies has not stood the test of international cooperation, but the technological innovations applied to finance have reposed the urgency of its revival as a topical matter.

On cybersecurity, as on every other aspect of the digitisation of money and finance, many European countries are moving autonomously and independently of the ongoing regulatory process, in which however they are also involved. For the initiatives in which the national authorities have participated directly or without commenting on their content, not all the details are known, but it is known that they have taken care to maintain the information by inserting themselves in the decentralised accounting circuits (or permissioned blockchains). In other words, they obtained an access key of the type experimented by Consob, which was mentioned at the beginning of this Speech. But this is only the first step in a long process.

The retrieval of information by the authorities raises the delicate problem of establishing who is authorised to be present in the decentralised mechanism and to what extent they can use the data of which they become aware; i.e. how to guarantee the secrecy of the data and the use made of them, both problems that must be resolved within the framework of the necessary legislation.

Conflicts have already arisen, on the use of virtual instruments, between private individuals and between them and some supervisory authorities, which have led the courts involved to have to pronounce on concrete cases on the basis of the legislation in force. The judgments introduce new features into the regulatory framework within which the supervisory and control authorities and the market itself are obliged to move. After a long period of reflection and decision-making uncertainty, many national government authorities seem to be oriented towards solving the problems that have arisen within the framework of new regulations.

In the United States, the Controller of the Currency, the Security Exchange Commission, the Federal Deposit Insurance Corporation and the Commodity Future Trading Commission have recently decided to jointly address the problem, but at present they are still at the level of assessing what to do. Among the decisions taken in the absence of specific legislation there is the SEC's which granted a company that intends to use the blockchain, a no-action letter to certify the trades it intends to implement, without however formally approving its activity. One of the arguments put forward by some operators is that they merely make available an accounting technique, renamed DeFi (Decentralized Finance), which is used by bidders and buyers of virtual products, i.e. the entities subject to supervisory regulations, on which responsibility for decisions is transferred; this is a similar argument to that put forward by rating companies after the derivatives crisis that had subprime credits as collateral. The legitimisation of the use of crypto-currencies has been fully recognised with the authorisation granted to an American trading platform to be listed on the Nasdaq technology exchange.

In the European Union, the ECB has proposed the creation of a CBDC, Central Bank Digital Currency (or crypto-euro), moving its implementation forward over time. The European Commission has put forward a Digital Finance Strategy, submitting it before Parliament and opening a wide consultation between operators. The Portuguese Presidency-in-Office is speeding up the adoption of the MICA programme (Market In Crypto-Asset), not always according to the regulatory lines suggested here. However, some experiments or decisions by Member States are already underway: the Bank of France has performed a nationwide creation of self-extinguishing crypto-euros as part of the placement process of virtual (or tokenised) EIB bonds. The German Federal Parliament has authorised the approximately 4 thousand Spezialfonds to invest in crypto-currency up to 20% of their investments, for an estimated amount of 240 billion euros.

If the timeframes of an initiative at European level are long, the country should make independent arrangements, if only to be ready to integrate into the Community institutions, when they enter into force. Experiments represent the best training school for professionals capable of reaching regulations in a subject that, due to its rapid evolution, requires continuous development.

The legitimisation in various forms of the existence of 'virtual savings' is now a reality that intersects with savings generated in a traditional way, that is, without spending a portion of the income produced by work or capital. Among the problems that have arisen, we must consider the worsening of the persistent discrimination in tax treatment amongst the assets owned by Italian households, which alter their portfolio balance, with repercussions on the proper functioning of the financial market and on real activity. A specific imbalance concerns the treatment of real estate assets, which are subject to unacceptable discrimination. It has been widely demonstrated that construction and public works play a central role in all processes of productive recovery and recovery of social stability, for which finance represents the indispensable fuel that drives the engine of development. Solving this problem should be seen as an essential part of the reform policy undertaken as part of the PNRR.

4 To know in order to decide

Guido Carli repeated that anyone who has public responsibilities should not limit themselves to raising problems, let alone expressing fears, but has the duty to put forward solutions. Luigi Einaudi had previously pointed out that you cannot decide without knowing. The analysis carried out so far has moved along these lines.

The examination of the problems raised by the spread of the use of innovative techniques by the financial industry has been presented in the body of the Speech. We are faced with revolutionary changes that must be addressed with full awareness of the content and urgency of their solution to avoid negative consequences on the micro and macro-systemic stability of the security market and, in this way, on the savings and economic growth necessary to protect them and use them well. We believe that a vast specific education campaign is necessary, that is even more incisive than the one implemented to improve the level of financial preparation of the Italian citizens, in which Consob and the main institutions of the country participated.

The situation in which the financial market currently operates highlights the inadequacy of the institutional architecture (rules and institutions) put in place to oversee the protection of savings and support income and employment growth. In the last Speech we proposed launching an initiative to unify the regulatory dictate of the Consolidated Banking Law (TUB) and the Consolidated Law on Finance (Testo unico della finanza - TUF), as already suggested by Carlo Azeglio Ciampi after the banking reform of 1993, but the situation has become so complicated as to impose a broader and unitary consideration of all the ways of functioning of the money and financial market at the domestic and international levels.

A mandatory step is the reaffirmation that the legal validity of contracts is guaranteed only by their denomination in sovereign currency. If, as would appear, the intention is to recognise the existence of private currencies, users must state in a specific contractual clause that they are aware of the risks they face when using non-public currencies and the market and savings

supervisory authorities must be able, with a specific access key to the decentralised accounting, to know about all the transactions of this type that are implemented.

Fulfilling this task requires full knowledge of the innovative techniques that have established themselves on the global security market. There seems to be a growing awareness that regulation cannot be established on a technologically neutral basis, that is, independently of the IT tools used and their continuous evolution.

To this end, it is necessary to activate formal consultation structures in Italy between government bodies and independent authorities that give a uniform direction to decisions on this matter, also in view of the position to be taken with regard to the ongoing European and international initiatives. A first step would be the transposition of the 2011 European Systemic Risk Board (ESRB) recommendation, which would create a single national counterparty to take charge of macro-prudential stability. The Bank of Italy would retain a central role, justified by its participation in the Eurosystem around which European finance currently revolves, but close coordination would be ensured between the three independent supervisory authorities (CONSOB, the Insurance Supervisory Authority (IVASS) and COVIP), with the participation of the MEF.

Banks and financial intermediaries are committed to digitising their current business and establishing partnerships with technology platforms that manage encrypted instruments, often already operating abroad. The confluence between the two actions will depend on the regulatory choices that will be made for cryptocurrencies and crypto-assets, but from now on we need to move within a broader strategy that avoids a technological dependence of our banking and financial system to protect Italian savings and remunerate them in line with the returns on invested capital.

In order to facilitate this process, groups of specialised professionals should be set up within public institutions to work together to achieve the objective of transposing the new technologies applied to the payment and financial systems more

quickly. The objective can be quickly achieved by co-opting the high-level researchers present in Italian universities and drawing on the reservoir of Italians operating abroad, resources that are waiting to be mobilised. Consob moved in this direction, reaching collaboration agreements with Italian and foreign universities and drafting a memorandum of understanding with the Ministry of Scientific Research and the Conference of Rectors of Italian Universities, to undertake initiatives with doctoral students involved in subjects of common interest. However, the financial resources and rules governing the recruitment of the necessary professionals must be adapted, taking into account the broader service they would provide to the entire socio-economic system as a training centre for new management groups and citizens aware of the tasks ahead.

The object of such collaborations would be the definition of the technical choices and the regulation of the different aspects of the use of virtual instruments and their exchange with traditional instruments. In particular, the definition of the access methods (or keys) to the decentralised blockchain/DLT accounting to guarantee the necessary information for market transparency, cybersecurity, the legal validity of the content of the safekeeping and exchange contracts for virtual instruments and credit instruments and derivatives or other financial forms that are embedded in them, as well as their interaction with similar operations carried out with traditional instruments.

Considering the pace at which the transformation process of the monetary and financial matters to be regulated and overseen is taking place, the preliminary phase of the work carried out by many public institutions and private research centres can be said to be concluded and a convergence of wills is required, overcoming fears and hesitations, towards an operational solution that does not suffer from too many compromises. Along the way a more complete regulation will be prepared, as happened and continues to happen to treat traditional instruments. 'Warnings' to investors about the risks they run when trading in crypto-currency are no longer enough. The time for reflection is now over and we must move on to choices.

Practical experience is the best teacher to gain the necessary knowledge to decide how to deal with the problems that have arisen in recent years on the operation of the money and financial market in the infosphere.

A separate discussion must be had for the use of Artificial Intelligence techniques, which requires continuous commitment to verify the compliance of algorithms with the widely felt need by savers to entrust credit and portfolio management to objective, transparent and efficient choices. There are several opinions on the subject, often linked to a lack of knowledge of this highly sophisticated method of choice or to hesitations about the usefulness or ethics of replacing human intelligence with artificial intelligence, which is nothing more than enhanced human intelligence. The excellent minds of men and women will always be at the heart of human progress.

In the absence of an integrated view of the problems and their governance, a chain of negative effects could be initiated due to a quantitative and qualitative imbalance between legal tender and private money that would trigger Gresham's Law, according to which bad money drives out good. Some central banks have already perceived this possibility. If this were to happen, it would cause the collapse of the trust system underpinning the systemic stability of the security market with effects on the real market. This could happen if the recent fears of inflation that arose in some economies were to materialise and if different rates of growth were to establish among large geopolitical and economic areas over a long period of time, inducing the authorities to change their economic policy direction, increasing interest rates and reducing public spending, especially on the usual side of infrastructure investments, with negative effects on expectations and related market behaviour. The chain would continue in the form of disturbances on exchange rates between currencies which, as economic history teaches, would interfere with international competition, the growth of world trade and geopolitical cooperation, not only from the economic viewpoint.

Despite the existence of this serious risk, confidence in the possibility that Governments and independent authorities can avoid such an outcome has not failed, but their action requires full awareness of the ways to address it, working on citizens to reach a majority of consensus. An educational campaign is now even more necessary, of equal intensity to the one carried out for preventive health care or which is currently taking place for environmental and social protection, which have become an integral part of the programme of the new European Commission.

Since the early months of 2020, Consob has launched a vast internal training program at all levels, achieving a good awareness of the problem presented here and preparing to face the new reality of the markets. This awareness and related commitment have not yet produced the expected results due to the regulatory constraints that weigh on its implementation capabilities, which are similar to those encountered by other State organisations. The Government has moved in this direction for the public administration, also in line with the commitment envisaged by the PNRR, but the reform strategy must concern all institutions.

In conclusion, the main message of the analysis carried out is that the expectations of progress, sometimes even utopian, have moved and still move humanity's conquests. Their ability to influence the resistance shown by what exists depends on the achievement by the citizens of an awareness of the objectives and ways to achieve them. Therefore, there has been a great deal of emphasis on a triple commitment to education and training as a successful viaticum for the choices to be made.