Istat
Istituto Nazionale
di Statistica

ANNUAL REPORT2020

The state of the Nation

Summary

presented by Gian Carlo Blangiardo, President of Istat
Friday, 3rd July 2020 in Rome - Palazzo Montecitorio

#IstatperilPaese

ANNUAL REPORT 2020

The state of the Nation

Summary

presented by Gian Carlo Blangiardo, President of Istat
Friday, 3rd July 2020 in Rome - Palazzo Montecitorio

#IstatperilPaese

Introduction

The presentation of the 28th edition of the Italian National Institute of Statistics - Istat Annual Report took place in a very unusual setting, in full compliance with the requirements dictated by those painful, dramatic events that we have tenaciously faced and, hopefully, overcome. Institutions, enterprises, households and individuals joined together in a broad mobilisation to face the spread of the COVID-19 epidemic since its outbreak, and then, as the emergency subsided, promptly set out on the challenging path to recovery. Istat will certainly continue to contribute to this process with its reliable and quality statistical data, as it did during the difficult experience over the last four months.

As from February onwards, the rapid evolution of the health emergency and its impact on social behaviours and economic activities have affected the demand and supply of statistical information; this was needed both by public actors and by citizens and economic operators to understand and monitor the ongoing crisis and to define appropriate measures and reactions.

The official statistics, therefore, had to meet an increased demand for information, facing two orders of difficulty: those imposed by the need to switch to smart working, largely unexplored, and those due to objective limits, such as carrying out surveys in remote among households or enterprises closed during the lockdown phase.

Throughout the period of the crisis, Istat continued to be fully operational, eliminating any obstacles that might affect the normal methods of construction of estimates, primarily those relating to short-term indicators, the labour market and prices. The methodological effort was intensive and supported by a coordination of official statistics at the international and, above all, European level. The statistical system, coordinated by Eurostat, succeeded in maintaining the highest possible homogeneity and comparability of data within the EU, which supported the correct allocation of the considerable set of measures, especially economic and financial, defined therein.

In addition to methodologies for offsetting temporary drops in response rates and, in some cases, changes in survey techniques, Istat also began, on an experimental basis, to use new sources, both administrative and related to Big Data. Overall, continuity of information has been fully ensured with only few changes being made to the calendar, and users being guided to read the estimates correctly; conditions that were quickly overcome through subsequent revisions.

Istat, however, has not only ensured the continuity of current statistics, but also launched further initiatives to meet the strong demand for information resulting from the exceptional conditions of the Country. In particular, it rapidly developed new statistics on mortality, drawing on data from the National Register of Resident Population (ANPR) with a detailed breakdown both at territorial (by municipalities) and structural level (by gender, age, education). Through an active collaboration with the Italian National Institute of Health (ISS - Istituto Superiore di Sanità), personal data have been enriched with epidemiological characteristics, such as the geography of the spread of COVID-19, as well as its intensity and incidence on the causes of death.

During the lockdown, Istat launched, in a very short time, two direct surveys of households and enterprises, which provided updated data on behaviour during the pandemic and, in particular, on its critical issues and prospects for economic operators. Moreover, the Institute has launched, in collaboration with the Ministry of Health, a seroprevalence survey on a sample of 150,000 individuals to estimate the size and extent of the infection in the population, and describe its frequency in relation to certain factors, such as gender, age, region, economic activity. Some of the results of these surveys, as well as the new information flows activated, will be referred to below. More details and more in-depth information may be found in the Report.

Dynamics and behaviours in the population

As it is well known, Italy is one of the earliest and most affected countries by the COVID-19 pandemic. The contagions recorded so far (as of July 2020) have been about 240 thousand and have caused just under 35 thousand deaths. The number of cases reported, which peaked in March (113,011), began to slowly decrease in April (94,257), and then more sharply and steadily in May and June.

The spread of contagion has been relatively contained in the South and Islands; more marked in the Centre, particularly in the Marche, and definitely higher in the North, especially in Lombardia. From the analysis conducted by Istat and ISS, in 4,942 deaths of people who tested positive for Sars-CoV-2, the virus was the direct cause of death nine times out of ten. However, COVID-19 acted as the only cause in just over one in four deaths. Many COVID-19-positive deaths were diagnosed as associated with hypertensive heart disease (18 percent), diabetes mellitus (16 percent), ischemic heart disease (13 percent) and cancer (12 percent).

At the national level, deaths overall increased rapidly and dramatically in March, reaching 80,625: 48.6 percent more than the average in the same month of the five-year period 2015-2019. The most marked percentage increases were recorded in Lombardia, followed by Emilia-Romagna, Trentino Alto-Adige and Valle d’Aosta.

In April, the number of deaths from all causes was 64,693, still one third higher than the average for April 2015-2019. However, in May a new phase started: the cases and deaths due to COVID-19 fell rapidly, and in June the excess mortality rate dropped drastically to zero in almost all areas of the Country.

In general, the highest excess mortality rate was found among men in their 70s and 80s, for whom the total number of deaths from 1 January to 30 April 2020 increased by more than 52 percent compared to the average of the same five-year period 2015-2019; the 90 and over age group followed, with a 48 percent increase. For younger men (aged 50-59 years) the excess mortality rate was 26 percent. The increase in mortality among women appeared more moderate in all age groups: overall, the over-90s prevailed, followed by the 80- and 70-year-olds. It is also worth noting that the increase in mortality has penalised the population with the lowest social status, particularly the poorly educated: the excess mortality of the least educated compared to the most educated was 30 percent higher for men and 20 percent higher for women (appropriately adjusted for structural effects).

While it is true that the over-80s proved to be the most exposed to the COVID-19 risk due to the fragility of their health, it should also be remembered that, at least until before the pandemic, they had made significant progress over time. Among the over-80s in 2019, only about one in four reported being ill or very ill compared with one in three in 2009. Over half of them had a good quality of life, and a third said they were fine or very fine. The latter were a group of about 2 million people who lived mainly in the North, had adequate economic resources, expressed high levels of satisfaction with life as a whole and had a network of friends, relatives and acquaintances whom they could count on in case of need. The component with fewer economic resources also maintained good health and satisfactory family bonds. All this confirms a generally optimistic view of the third age, which could be summed up in the expression “old age can wait”. In fact, the residual life expectancy, a parameter according to which a person is considered old, has gradually risen. In 1980, men at the age of 66 had a life expectancy of 13 years; women had the same life expectancy at the age of 68; today – at least according to the most recent mortality data from a pre-Covid era (2018) – the same residual life expectancy could be experienced at 73 and 76, respectively. Latest trends, however, could have affected these data. Some scenarios, drawn by Istat on the basis of mortality data for 2020, showed a sudden trend reversal in the traditional growth of life expectancy in our Country. If on a national basis this accounted for a few months’ difference, on a local basis the residual life expectancy dropped by several years. Data on risk of death registered in 2020 in some provinces – Bergamo, Piacenza, Cremona, Brescia, Aosta, Sondrio, Lodi, Parma and Lecco, just to mention the most striking cases – caused the life expectancy to go back to ten or even twenty years ago, especially for older people.

Data relating to the characteristics and dynamics of the National Health System (NHS) that the pandemic invested with tasks and responsibilities sometimes too close to the limits of its resistance, revealed an interesting fact: despite the poor economic resources allocated to in the last decade, our NHS has been able to react with admirable commitment and competence and could face emergency, even if sometimes in distress and difficulty. Hospitals have been under unprecedented pressure. In statistical terms, this resulted in a decrease in admissions for ischemic heart diseases and cerebrovascular diseases, although the capacity to treat these diseases in a timely and appropriate manner remained unchanged once patients were hospitalised. Likewise, there has been a drastic reduction in the offer of non-urgent elective surgery, while there seemed to be no change in the offer of non-deferrable interventions in oncology and orthopaedics.

On the other hand, it should be clearly highlighted that the health emergency intervened after a long period in which our NHS has been affected by a major downsizing in terms of resources. In particular, from 2010 to 2018, on an annual average, public health expenditure increased by only 0.2 percent and the number of beds fell by 1.8 percent. Spending on investments by healthcare authorities also fell from 2.4 billion in 2013 to just over 1.4 billion in 2018. The slow growth in healthcare spending was mainly due to the decrease in the number of healthcare workers. In the period 2012-2018, the healthcare sector recorded a reduction of 25,808 units among the permanent staff only. Italy had about 40 doctors for every 10 thousand residents, less than Germany, 42.5 per 10 thousand residents; even more unfavourable is the comparison between Italy and Germany with regard to nursing staff: 58 against 129 per 10 thousand residents, respectively.

As of 31st December 2019, Italy had 66,481 specialists in emergency medicine, infectious diseases, respiratory or cardiovascular diseases and internal medicine; these professionals made up about 35 percent of the total number of specialist doctors. Compared to 2012, their total number increased by 5.2 percent, with large differences by type of specialisation: the number of anaesthetists, emergency and cardiovascular specialists increased, while the already small number of specialists in infectious and tropical diseases further decreased.

Over the years, the number of hospital beds has also decreased considerably: in 1995, they were 356 thousand, or 6.3 per 1,000 inhabitants, and in 2018 they fell to 211 thousand, with 3.5 beds per 1,000 inhabitants. By way of comparison, the supply of beds in Germany was almost triple: 8 beds per 1,000 inhabitants.

Also primary care services, that is local health systems centred around the general practitioner, underwent a downsizing. In 2018, primary care staff amounted to approximately 43,000 general practitioners and 7,500 family paediatricians, with a decrease of 2,450 for the former and 157 for the latter compared to 2012.

According to 2017 data, local public health facilities providing specialist clinical assistance and instrumental diagnostics were a total of 5.8 per 100 thousand inhabitants, down from 6.4 in 2009, while private facilities under contract with the NHS were 8.8 per 100 thousand inhabitants, down from 9.7 in 2009. Finally, over the years, there has been a reduction in outpatient care delivery: in 2017, 1,257 million outpatient services were provided, 6.5 percent less than in 2009. These figures contrasted with the fact that, between 2002 and 2019, the elderly population in our Country – that is, the component naturally more inclined to express a demand in the health sector – increased by 3.1 million people aged over 65 years, more than half of them being over 80 years (1.8 million).

Regarding people's social attitudes and behaviours during the lockdown, the survey – specifically conducted by Istat in April – highlighted a widespread awareness of the seriousness of the situation and a strong cohesion. The majority of respondents expressed a strong confidence in major institutions: 9 out of 10 is the average grade given to medical and paramedical staff and 8.7 that given to the Civil Protection. The adoption of the behaviours and practices suggested to contain the spread of the virus testified a strong civic sense all over the Country. The vast majority of the population complied with the basic hygiene measures on hand washing, face masks and social distancing.

This has also involved drastically reducing the number of visits to non-household family members, keeping in touch by telephone or video calls, which accordingly recorded a large increase in frequency and duration.

Although the days of Phase 1 were lived with sacrifice and concern in the majority of cases (often with anxiety, boredom and loneliness), most of those interviewed found serene refuge in their family relationships and affections. More than 9 out of 10 people had the opportunity to spend this phase in a positive family context, although there were also cases of difficult situations. A part of the interviewees (9.1 percent), in fact, were afraid to do or say something, being in the family, relegated to a context aggravated by isolation and the impossibility to compensate with social interaction. It is in these situations that physical or psychological violence against women could hide, a phenomenon to which particular attention should be paid, also considering the increase in calls to the 1522 helpline.

The obligation to stay at home has generally called for a reorganisation of everyday life. Almost the entire population had more free time to dedicate to recreational activities. TV and radio have been an indispensable channel for keeping update on the evolution of the situation, as well as for entertainment, especially for the older population. A strong increase has been observed among those who dedicated themselves to reading: 62.6 percent of the population, with 26.9 percent reading books and 40.9 percent daily newspapers. There has also been no abandonment of physical activity and sport, which, although it has been largely practiced at home, has involved almost a quarter of the citizens. Creative activities have increased by at least 50 percent: singing, playing, writing, drawing, painting. The lockdown has been a restriction, which has increased the difficulties of many vulnerable people, especially disabled and mentally ill people, but also an opportunity to carry out activities postponed due to lack of time, to learn to do something new, or to express their creativity. Not a few have prayed, 22.2 percent every day, 42 percent at least once a week, just as many (48.3 percent) have not.

Phase 1, with a more frequent coexistence in the home and the overload of care work, also resulting from the closure of schools, has laid the conditions for a greater sharing of family work in the couple, although not for all activities. The differences in the involvement of men and women in house cleaning, childcare and cooking have remained very high. Care activities involved 85.9 percent of individuals with children between 0 and 14 years of age, and there was a large increase in the time dedicated to this by both mothers and fathers. The preparation of meals has involved 63.6 percent of the population, representing for many also a moment of leisure and an opportunity to try new recipes or culinary experiences among men, and especially among young people.

The family organisational shock caused by the lockdown potentially affected all households with young children and both or the only parent working. For more than 800 thousand of the almost three million households, the difficulties have been particularly accentuated by the need of the parents to be physically present in the workplace, without being able to count, given the situation, on the precious contribution of grandparents. For other households, remote working required a sudden adjustment in terms of methods and equipment and led, especially for women, to an overlap in work and care times, which were allocated at different times of the day before the lockdown. As early as in 2019, 1,337 million persons employed declared to have used their home as a workplace, but only 184 thousand did so predominantly. The health emergency, however, suddenly imposed the shift to remote working in many sectors, so that 12.6 percent worked at home in March (+8.1 points in a year), 18.5 percent in April (+14.1 points) and 20.1 in May (+15.4 points). The incidence of remote working was higher among women than men (24 percent as compared to 17 percent in May) and in the Centre and North compared to the South and Islands (22 percent and 15 percent respectively). The number of employed people who worked from home, although not necessarily on an exclusive basis, increased to around 4.5 million in May, although 7 million positions were potentially suitable for remote working. On the other hand, the organisation of work in our Country prior to the epidemic was still very rigid: almost 17 million people were employed with working hours that were rigidly set by the employer – or by customer needs in the case of the self-employed. Some of them, 5.6 million workers, also reported great difficulties in taking leave for personal reasons or, in the case of the self-employed, in finding time for themselves. The disadvantage was greater for women, who also complained a lack of early childhood services, that would allow them to better reconcile work and private life.

Poor and unequal offer of childcare services was a disadvantage for women – discouraging their participation in work and representing an obstacle on their career paths – but also a penalisation for children from disadvantaged households in the South and Islands area. In this area, less than 15 percent of children up to 3 years of age were admitted in public and private nurseries or complementary services. Households living in this area, moreover, were often compelled to send their children to preschool before the age of 3, with negative consequences on school performances. In addition, the lack of full-time places in primary schools represented a further criticism for children living in the South and Islands regions. Students aged 6-17 that during the lockdown might have encountered difficulties with distance learning, due to lack of computers or their inadequacy within the family, were estimated to be roughly 3 million (based on 2019 data), 20 percent of whom lived in the South and Islands area.

Data and scenarios of economy

In the first half of 2020, the international economic scenario appeared rather complex and uncertain. At the first signs of economic strengthening, the health emergency caused a worldwide shock of exceptional intensity, which is now leading to a global recession. Italy, like other countries, was directly hit by an exceptionally sharp fall in economic activities, which is already being offset by the first signs of reaction.

The volume of world trade in goods, in a sharp slowdown in 2019, has initially recorded a sudden decrease in the first quarter (-2.5 percent over the previous quarter) and then a real fall in April (-12 percent).

Governments and Central Banks in the European Monetary Union - EMU and the major countries have promptly introduced substantial measures to support households and enterprises, but the information currently available – still relating to the months affected by the immediate impact of the lockdown – is unequivocally unfavourable. In the Euro area, GDP fell by 3.6 percent in the first quarter over the previous one, and the figures for industrial production, retail sale and export relating to the month of April showed a very sharp fall.

The crisis triggered by the health emergency hit the Italian economy in the mid of a prolonged weakness phase. Last year, GDP grew only by 0.3 percent and its value remained just below that recorded in 2011, on the eve of the last recession.

In the first quarter of 2020, the partial freezing of activities in March has had significant effects, with a 5.3 percent contraction in GDP over the previous quarter, and even more marked falls in private consumption (-6.6 percent) and investments (-8.1 percent).

Latest estimates of quarterly national accounts have shown that the income support measures, introduced at the beginning of the emergency, contained the fall in households' disposable income: in the first quarter, while nominal GDP fell by 5.2 percent, households' income declined by 1.6 percent. The sharp contraction of final consumption expenditure during the lockdown resulted in a remarkable growth of the saving rate.

In order to gather direct information on economic operators' evaluations and choices in this difficult phase, in the month of May Istat carried out a special survey on the "Business situation and prospects during the COVID-19 health emergency". In the first phase of the health emergency, 45 percent of the enterprises, mostly small-sized ones, suspended their activities in compliance with Government decrees. Enterprises that could carry on their activities did not exceed one third in number, but accounted for over 60 percent of the national turnover.

Less than one sixth of the economic operators, mostly microenterprises, reported no turnover in the two-month period March-April; over 70 percent recorded a decrease over the same period of the previous year (in most cases, by over 50 percent), while the remaining share indicated stability (nearly one tenth of the total) or increase (just 5 percent, mostly large-sized enterprises).

During 2019, the long, albeit slow, phase of growth in employment came to an end and, after the stagnation at the beginning of 2020, the number of employed persons decreased sharply in March, and more markedly in April: -454 thousand units in the above two months, according to the latest estimates. Due to the difficulties affecting job-seeking activities, inactivity increased, and the unemployment rate (estimated at 6.6 percent in April) decreased as a result of more people giving up seeking for a job.

Provisional estimates for the month of May showed a slowdown in the employment downturn; a monthly decrease of 84 thousand units, however, was recorded for a total drop of 538 thousand units in three months, mostly due to the fixed-term component continuing its fast fall. At the same time, the gradual re-opening of activities in May favoured a recovery in hours worked and a restart of job-seeking activities, and accordingly the unemployment rate grew to 7.8 percent. On the basis of provisional data from the Labour Force Survey, those claiming to be on temporary lay-off fund decreased from 3.5 million in April to nearly 2.5 million in May.

Over the last two years, per capita wages and salaries showed a slow recovery (+0.7 percent in real terms in 2019), but in the first quarter they went down by 0.2 percent on a short-term basis. National labour contracts expired for a large number of workers in the private sector (72 percent in the industry and 82 percent in services according to April results).

In 2019 consumer inflation went down again, partly due to a further reduction of profit margins. This trend continued at the beginning of 2020 due to the collapse of oil prices, which caused in May a new negative price variation rate (-0.3 percent). At the same time, however, there was a wide perception of an increase in inflation, probably due to the rise of prices of large consumer goods, whose trend growth rate was nearly 3 percent in April and 2.6 percent in May.

The continuous decline in interest expenditure, a further widening of the primary surplus in 2019 (to 1.7 percent of GDP), and the deficit fall from 2.2 percent in 2018 to 1.6 percent contributed to consolidate the public finance balances. Accordingly, the debt-to- GDP ratio remained unchanged (at 134.8 percent), albeit well above the EMU average (84.1 percent). The strongly expansionary fiscal policy, necessary to counter the crisis and allowed by the suspension of the Stability and Growth Pact, will have an immediate impact on balances and debt. The preliminary estimates for the first quarter already indicate an increase in the deficit-to- GDP ratio by 3.7 percentage points compared to the previous year, due to the growth in expenditure on social benefits and the fall in revenues.

Concerning the most recent economic developments, the crisis had a wider impact on production activities. The industrial production index in April decreased by over 42 percent over the previous year, and the construction index by nearly 68 percent. The contraction of both foreign trade flows recorded a further acceleration, and exports fell in March-April by nearly 30 percent over the same period of 2019.

Latest data, however, showed some initial signs of a trend reversal. The extra-EU foreign trade index in May showed the first, significant upswing in exports, particularly marked for the sale of capital goods. Imports continued to decrease, following the fall of oil prices, but a sign of recovery came from the investment goods sector.

Finally, the business confidence indicators showed in June an initial upward trend in comparison with the previous month, with more significant improvements in the construction and services sectors, and rather partial progress in manufacturing, where, however, a significant recovery in production estimates could be observed. The evolution of these indicators is similar to that recorded in the EMU as a whole and seems to be a clear sign of a trend reversal in activities, but cannot provide clear elements on its intensity yet.

With regard to the outlook for businesses, an interesting reaction resulted from the above-mentioned May survey. More than one in three enterprises (but less than a sixth of the large ones) ruled out undertaking specific crisis responses; but for a significant share of them, this might only be indicative of their partial “disorientation” in the face of such an unexpected and sudden crisis.

Among the positive reactions from economic operators, the drive to change or expand sales or supply channels affected nearly 14 percent of enterprises. The strategy of accelerating the digital transition was undertaken by less than 10 percent of respondents overall, but almost by 40 percent of large companies, suggesting that the emergency also brought about modernisation effects.

As far as defensive reactions went, it is worrying that one in eight enterprises expressed the intention to postpone or cancel their investment plans, and that this share increased with size, with a potentially depressive effect on the accumulation cycle, especially in manufacturing and transport. Another negative sign is that almost 12 percent of enterprises aimed for a substantial reduction in the number of employees, although this trend was mainly widespread among small-sized enterprises.

Going deeper into the business world, it is necessary to consider how the contraction of activity due to the health emergency occurred at a time when the structural strengthening of the business system, favoured by the previous expansion, risked being interrupted, suffering the repercussions of too long a stagnation.

While evaluating the effects that the new crisis may have on the production system, it is useful to understand how the system had progressively restructured, in order to identify the mechanisms and channels through which the effects of the recession – the third in twelve years and probably the most violent – will spread. It is equally important to identify the elements of resilience and strength that will have to provide the basis for the restart.

During the cyclical recovery (2014-2017) the enterprise system did not rebuild the productive base lost during the previous recession. A process, instead, began which led smaller enterprises to lose, and larger ones to increase, their weight, with favourable effects in terms of overall efficiency and dynamism. In 2017, there were almost 80,000 businesses and 125,000 employees less than in 2011, with a value added of -1.9 percent. A severe contraction was observed in the construction sector (which lost 14 percent of enterprises and around 25 percent of value added), and partly in industry in the strict sense, where the 7 percent reduction in the number of businesses corresponded to a 3.3 percent increase in value added. The trade and business services sectors, too, shrank (-1.5 percent of enterprises, -2.4 percent of value added), while personal services expanded significantly (+14.2 percent of enterprises, +5.6 percent of value added). This latter had a less dynamic work productivity and lower capacity to boost the system.

These changes can also affect the links between the enterprises themselves: in a fragmented system, such as the Italian one, the ability to generate growth also depends on the ability to establish relationships with other units or institutions. Connections are important for impulse transmission and, therefore, also for the ability to pull the economy out of a crisis. In the last decade, a strong polarisation has emerged: exchanges among most relevant sectors have strengthened, and those among the less connected sectors have weakened. The result was a lower overall transmission capacity and a trend towards fragmentation of production processes. These trends are likely to be substantially affected by the current crisis and, in particular, by the sudden interruption in the activity of entire sectors, but for the moment they can only be interpreted in the light of the structural and behavioural characteristics of the sectors involved.

First of all, a study on the "strategic dynamism" of individual production units, based on data from the permanent Census of enterprises carried out in 2019, revealed that enterprises that remained active during the lockdown mainly belonged to sectors transmitting growth impulses on a large scale, but slowly. Moreover, a simulation exercise, based on the use of international tables of cross-sector relations, provided, for each production sector, an estimate of the drop in value added due to the lockdown measures implemented in March and April in our Country, as in many other countries. Compared to a reference no-crisis scenario, the estimated fall in overall value added was 10.2 percent, of which 8.8 percentage points due to internal dynamics and 1.4 points to "imported" effects (of which 0.6 points can be attributed to the reduction in demand in the EMU area).

The direct and indirect effects of the lockdown would generate significant contractions in the value added of all major sectors of the Italian economy, more severe for some service sector activities (-19.0 percent for accommodation and catering; -11.3 percent for personal services; -10.3 percent for trade, transport and logistics) and for constructions (-11.9 percent). The "imported" component is small in services and large in industry (between 2.7 and 3.5 points), due to its greater integration in international trade and global value chains.

Changes in the production structure and the effects of the economic cycle interacted with the behaviour of companies and their financing choices, crucially affecting their economic-financial solidity. A synthetic indicator of soundness, calculated on the balance sheets of corporations operating in Italy between 2001 and 2018, provides interesting insights. The recovery phase had led to an overall strengthening of sustainability in all macro-sectors, thanks to a reduction in the share of companies "at risk" (18 percent in 2018), which began in 2012 as a selective effect of the recession, and an increase in the weight of the healthy ones (37 percent). A very large group (45 percent) of "fragile" companies (profitable but with debt and/or liquidity problems) was also identified, whose incidence had fallen slowly.

Data from the recent Permanent Census of enterprises (with 3 or more employees) indicate that self-financing continued to be the main source of funding for production units, the only one for almost half of them. The liquidity crisis triggered by the emergency could have an enormous impact on the operation of an important part of this component, should access to external resources not be easy. An estimate of the lockdown impact on the liquidity of Italian capital firms (representing 70 percent of the reference value added) indicated that at the end of April, almost two-thirds of firms were likely to have sufficient liquidity to operate at least until the end of 2020, while more than one-third were illiquid or in precarious liquidity conditions. In particular, it was estimated that 16.5 percent were already illiquid at the end of 2019 and a further 13.3 percent would become illiquid between January and April 2020.

The results of the estimates were confirmed by the indications from the already mentioned *ad hoc* survey conducted on enterprises in May. In particular, the most frequent concern in operators' opinions (with an incidence of 51.5 percent) was the risk that liquidity could be insufficient to meet all necessary expenses by the end of 2020. The smaller the size of the company, the more widespread was the concern about the lack of liquidity: the problem was reported by less than 25 percent of large firms (with over 250 employees), but by over half of micro and small enterprises. From a sectoral point of view, the problem was more severe in constructions and industry in the strict sense.

The survey also looked into the question of the means by which enterprises tried to meet their liquidity needs. It emerged that, given the seriousness of the situation, the number of companies that did not express the need for countermeasures was on the whole contained (23 percent), although higher (almost a third) among large firms. A similar share of units – again higher among the large ones – planned to meet their liquidity needs through their balance sheet assets. The main response instrument, however, appeared to be new bank debt – which could also be started through public guarantees under the

Italian Legislative Decree n. 23/2020 – used by 43 percent of companies. This was the instrument of choice for small and very small units, while it was chosen by about a third of medium-sized units and less than a quarter of large ones.

Between old problems and new criticalities

The complex health emergency, with its economic and social effects, has interacted and is still interacting with a set of pre-existing criticalities and problems, which it is important to continue to focus on, even beyond the new trajectories traced by the effects of the epidemic. In this Report, Istat has summarised some long-standing issues that it considers to be priorities, especially at a time when the Country must identify the structural problems that deserve energy, action and investment, both public and private.

The first issue is inequality. Over the last few decades the middle and upper social classes have grown, but with a progressive slowdown that started in the mid 90s of the last century and continued with the recession of 2008. On the one hand, there has been an increase in the number of entrepreneurs and top management of enterprises and public administration; a strong initial expansion of the freelancers, middle management and also the white-collar class; but also a growth, accentuated and continuous across all generations, of low-skilled workers in the tertiary sector. On the other hand, there has been a strong contraction of the self-employed and the traditional working classes, reflecting a trend towards polarisation that has been more accentuated for women.

The rate of absolute mobility, *i.e.* the share of 30-year-olds in employment who reached an occupational class different from that of the family of origin, grew from 65.4 percent of those born before 1941 to 73.3 percent of those born between 1972 and 1986. However, while for all generations born by the end of the 1960s, these high rates of mobility mostly resulted in an increase in social mobility towards classes of a higher level than that of origin, the number of those who descend the social scale among the younger generations is increasing and exceeding for the first time the number of those who ascend it. At the same time, the intensity with which social origins influenced the future employment of individuals – expressed by an indicator that increases with increasing conditioning – has been decreasing: it was 2.3 for those born before 1941 and decreased to 1.8 for the younger generation, although its weight remained high and above 1, *i.e.* the value that expresses the absence of influence by the class of origin.

Italy entered the COVID-19 emergency after experiencing a period of constant worsening both in terms of absolute poverty and inequality in the labour market. Following the crisis of 2008-2009, the incidence of absolute poverty doubled in 2012, and tripled for children and young people, with a further worsening in the South and Islands and for working-class households with unemployed head. The level remained unchanged until 2019, when the percentage among households decreased from 7.0 percent in 2018 to 6.4 percent, and individual poverty from 8.4 percent to 7.7 percent, still far from the pre-2012 figures.

Inequalities have also increased in the labour market. In terms of employment performance, men, young people aged 25-34, the South and Islands area and the less educated have not yet recovered their 2008 employment levels and rates. Moreover, while at that time the crisis mainly affected male-dominated sectors, today the most critical areas are services, in particular tourism and catering, that is sectors with a high female presence, often precarious and irregular. It should also be added that the growth of involuntary part time, as well as the gender segregation in professions, all contributed to paint an uneven picture where young people, women and the residents in the South and Islands area are more penalised. In the difficult economic situation caused by the measures to contrast the pandemic, the significant share of non-regular employment represented a further factor of fragility for many households. It is estimated that there are about 2.1 million households with at least one irregularly employed person – over 6 million individuals – and half of them include exclusively irregularly employed persons.

A second category of problematic issues deserving attention includes education and knowledge. Italy has faced the shock of the pandemic in a situation of disadvantage in comparison with other advanced countries, both in terms of levels of schooling and digital divide. The emergency has had the positive effect of demonstrating how, with the available human capital and the rapid and wide use of available technologies, it is possible to start a profound functional change in work and production.

However, focus should also be put back on the weight that the Country's delay in investing in knowledge will have on the post-crisis economic recovery. Italy, in fact, has one of the lowest levels of schooling in the EU, even for the younger age groups. In 2019, in the EU27 as a whole (without the United Kingdom), 78.4 percent of adults aged 25-64 had at least an upper secondary school diploma, while in Italy only 62.1 percent. The gap was almost as wide for university graduates in the 30-34 age group (12.7 percentage points).

The employment rates of adults aged 25-64 with a university degree were, both in Italy and in the EU27, almost 30 percentage points higher than those of people with lower secondary school at most, which confirms the importance of investment in education; in our Country the gap was even wider for women, approaching 42 points. Moreover, analyses carried out at the business level on the relationship between economic results and the level of education of employees showed that the latter is positively associated with employment *performance*, and underlined how enterprises with a higher presence of educated workers (assessed in terms of average schooling) were characterised, especially in industry, by higher labour productivity.

Finally, with regard to the strategic panorama of employees in Research and Development (R&D), Italy's position in recent years seems to have improved: according to 2017 data (the most recent) this component accounted for 2.15 percent of total employment, with a growth of 0.9 percentage points compared to 2005 (compared to a 0.6 growth in the EU27), which placed Italy slightly above the European average. This growth, however, which was concentrated in enterprises, concerned the whole of the staff employed in these activities, while with regard to researchers, our Country remained well below the EU average, despite a significant recovery. Italy lagged behind for the employment of R&D personnel both in public institutions and, above all, in Universities, with a significant gender gap, although less wide than the EU average.

The third critical issue to be taken into account and tackled, also in view of its possible worsening as an effect of COVID-19, is the persisting low fertility of our Country. The average number of children per woman, in the history of reproduction through the various generations, has continued to decline inexorably since the first decades of 1900. It ranged from 2.5 children (on average) per woman in the early 1920s, to 1.56 in the generation born in 1965, up to 1.43 for the 1978 generation. At the same time, while the generations born in the early 1930s had on average about two children for women in the North and the Centre, and almost three in the South and Islands area, thirty years later the same average number of descendants was found in almost all areas of the Country.

In the 2019 demographic balance, in line with what now seems to be an established trend, the total number of people born in Italy marked – for the seventh consecutive year – a new negative record in absolute terms: the lowest value ever recorded in over 150 years since the Unification of Italy. According to official estimates, there were 435,000 births during the year, a further fall from the “turning point” of 2008, which reduced the annual number of newborn babies by a quarter in just over a decade.

In the post-Covid period, however, the fall in the birth rate may also undergo further acceleration, as there is no doubt that the increasingly difficult choice of whether to have one (or another) child will continue to be made in conditions of insecurity and difficulties, economic and otherwise, for an indefinite period.

In this regard, our estimates predict that, as a result of the climate of uncertainty and fear associated with the current pandemic, there will be a drop of just under 10,000 births in the immediate future, one-third in 2020 and two-thirds in 2021. The scenario is likely to further worsen should the effects of the employment shock add to those of uncertainty and fear. Estimates show that the number of births would fall to around 426,000 in the final population balance for the current year, and to 396,000 in 2021 in the worst-case scenario. The symbolic boundary of the 400 thousand births per year, therefore, is likely to be crossed downwards as early as next year, although, according to the most recent and most pessimistic Istat forecasts (but elaborated in the pre-Covid era), this should have occurred only in 2032.

It is, moreover, important, on the other hand, to point out that the decline in births was also largely due to the structural effects caused by the significant changes in the composition of the female population of child-bearing age. The longer this change continues, the more difficult it will be to reverse the current trends. Despite all this, the number of children born in Italy do not reflect the widespread desire for motherhood and fatherhood still present in our Country. Only 500 thousand individuals aged 18-49, in fact, claimed not to have maternity/

paternity within their life project. Survey data show how, paradoxically, the level of fertility was decreasing over the years, but the number of children desired in the population was still two; which, moreover, expresses a model of ideal fertility that was homogeneous across the Country. As many as 46 percent of citizens would like to have two children, 22 percent three or more, and only 5.5 percent would like only one. This could be observed in all parts of the Country, for both men and women. Their desire to have children remained high even after the age of 40: there were 830,000 people aged over 40 who did not have children, but would have liked to have.

The basic impression is that our Country is unable to think about its future, to satisfy a clear desire of its society, to remove all those obstacles that have prevented men and women in recent years from building their independence, from having the children they wanted and turning their desire into reality. Supporting these objectives, however, would help to face up to the insufficient generational change that, on many occasions and with the support of extensive statistical documentation, has been indicated as a looming emergency with very serious and problematic consequences.

A further issue that deserves careful consideration is the state of the environment, measured by the impact of human pressure on it in terms of emissions, material consumption, climate change and water availability. While it would seem superfluous to underline how the evolution of environmental degradation and climate change is a critical issue at global level, it is nevertheless important to keep the monitoring of the Italian situation alive and updated with regard to crucial measures to reduce the anthropic pressure.

In this regard, it should be noted that of the many types of waste from the socio-economic metabolism, the largest in terms of weight is not solid waste (around 160 Mt), but gaseous emissions (about 450 Mt). They are largely composed of greenhouse gas emissions that are responsible for climate change and all its damage and catastrophic effects. Between 2008 and 2018, these emissions fell by 23 percent, mainly due to the fall in CO_2, which is the majority component. A relatively small contribution to the decline came from household consumption – which accounted for 26 percent of greenhouse gas production, compared with 21 percent from electricity production and 27 percent from other industrial activities – which decreased by 13 percent over the reference period.

Between 2008 and 2017, there was a significant reduction (by 22 percent) in particulate emissions, causing significant health damage, with 86 percent of the dust flow being composed of the finest and most dangerous particles. Household activities accounted for more than half of these emissions and their reduction has been much slower than that from production activities, particularly industrial ones.

Overall, the fight against climate-altering emissions and particulates has been relatively successful. This was also confirmed by the improvement in the composite index on Sustainable Development Goals - SDGs' environmental dimension – recently proposed by Istat as part of the Annual Report on SDGs –

driven by progress in clean energy and responsible consumption. The decline in emissions was, however, largely explained by the economic trend that remained negative, with GDP in 2018 being 3.4 percent lower than ten years earlier. In this perspective, the results were insufficient with respect to the European objectives aimed at combating climate change.

At the same time, important critical issues emerged linked to the effects of climate change: alteration of average temperatures – which also in Italy showed a strong upward trend (+0.38°C every 10 years in the last 40 years) – and irregularities in the intensity of precipitation and the flow rate of the main watercourses and related basins. The persistent problem of water leaks in the drinking water distribution network should be added to this.

We can conclude that the lesson learned during the COVID-19 emergency provided decision-makers with valid, useful elements to start and manage the recovery phase of the economy. Some surprising changes, occurred in the environmental context during the lockdown, hopefully proved that it is not only possible, but necessary to eliminate, or simply mitigate, the impact of human activities on the environment. This should also stimulate us to reflect on the opportunity and the need to focus on new orientations, promoting and optimising the beneficial combination of material and social wellbeing on the one hand, and the quality of living places on the other.

Conclusions

Year after year, the Istat Report proposes a multi-dimensional portrait of Italy through the data. It is an accurate and precise image of the features that characterize our Country in a structural way, and of the most significant phenomena occurring over time. This portrait is built on the basis of a wealth of in-depth statistical information on the Italian economy, society, culture, institutions and territory, their changes and transformations, and offers a solid and reliable basis for planning future scenarios.

This year, perhaps for the first time since World War II, Istat's ability to ensure statistical observation of the Country even under adverse conditions and in the general upheaval has been put to the test. Istat is proud to have overcome this moment with its own strength, with the dedication of its human resources and with its flexibility and organisational intelligence. Serving its mission, it managed, in fact, to maintain the ordinary production and release of statistics and reports almost unchanged, while setting up a second line of data collection and publications designed to respond promptly to the new needs imposed by the COVID-19 emergency.

The extraordinary nature of the last four months has not stopped Istat's work of continuous, capillary analysis of the Italian reality in all its most significant components, but has also assigned it tasks requiring innovation and commitment. The 2020 edition of the Annual Report reflects this duplicity. It is an extraordinary contribution to an extraordinary year. On the one hand, in fact, it fulfils its task of offering a precise, statistical portrait of Italy, in that it gives an adequate representation of the health storm that has upset it, in a global escalation, since the end of February. On the other hand, Istat has accompanied the Country throughout this epidemic, with solid evidence.

The Report has repeatedly highlighted the lessons that this crisis has taught us.

First of all, it has been documented that the process of digitisation of businesses, households and society is an indispensable objective if we are to move forward without leaving anyone behind. This is a decisive investment for the coming years, and particularly for children and young people in our Country, as well as for our future within a European Union, that is heading towards a green and digital transition.

It has also been highlighted how flexibility and new forms of work can become a driving force for reconciling people’s lives with the world of work, albeit at considerable installation and training costs; they can also contribute to develop a new concept of productive system, involving convergence of environment protection and economic growth.

It has been demonstrated how a fair social system cannot exist without a fair and appropriate health system, that guarantees and protects the lives of citizens and their health at territorial level. Ours is one of the most developed countries in the world in terms of longevity, but this achievement, as the epidemic has made clear, is by no means irreversible.

The pandemic has had a specific impact on Italy, on its unequally affected territory, on its demographic and social structure, on the daily life of its households, on its economy, particularly on businesses and work, and on the network of services, from health to school. It is not yet possible to assess its medium- and long-term effects: great concern, however, is caused by the devastating effects of the confinement measures on some strategic areas, such as human capital, or the school, especially in view of the coming months; or tourism, which is essential for our economy, although weak and fragile in terms of business structure. With its instruments, however, Istat is already able to detect the first signs of recovery.

The crisis has long been dominated by information uncertainty. Demand for data for decision-making has grown and become more pressing. Although they are not yet a definitive answer on the resilience of the Country, statistical data and results presented in this Report draw a reliable and detailed picture of the situation on the eve of the pandemic, highlighting the historical elements, both of vulnerability and of strength, to be taken into account.

Besides meeting the specific information needs that emerged from the prolonged COVID-19 emergency, data and statistics produced and published by Istat describe the Country’s response, and make a valuable contribution for decision-making, resource allocation and policy-making processes for a robust, lasting and sustainable recovery.