LUISS

Cattedra

RELATORE

CORRELATORE

CANDIDATO

Anno Accademico

INDEX

ABSTRACT

The real estate market plays an important role in the growth and development of the modern economy. Real estate assets are traded between one or more economic entities, making it possible to use buildings more effectively, increase transparency, promote the inflow of capital and technology, and encourage Specialization and financialization of the sector. In this case, this market plays an efficient role, which is essential in a dynamic economy toward innovation and quality improvement . The Real Estate market is characterized by: • Demand which is represented by buyers or tenants. On the other hand, the supply is represented by owners who wish to sell or lease the property. There are fewer sellers and buyers in this market than in other markets, which means a lack of liquidity, transparency and standardization. In addition, the real estate market is indeed fragmented, and the two major types of real estate market segments are commercial and residential real estate. The former involves the sale and lease of property for commercial purposes. The latter involves the sale and lease of land and houses to individuals and families. • Unlike other markets, the real estate market is not homogeneous, and its assets are unique, which means that we cannot find a perfect substitute in this market. The uniqueness of the industry's assets stems from the fact that the value of the asset depends on its location, which of course cannot be changed. Each micro and macro field has its own characteristics. In addition, each building, especially those used for residential, commercial and office purposes, is very different from each other, which makes every transaction unique and non-repeatable. In addition to its location, the real estate is characterized by its price, nearby services such as bus or subway stations, supermarkets and schools, and its structural and architectural features. • Another important feature of real estate assets is low liquidity, which means that realizing real estate is not easy. The low liquidity is because it is difficult to find buyers who can afford this type of transaction and all other costs associated with the purchase. In addition, the low transparency, that is, the existence of information asymmetry, is due to the existence of many entities in the market and the fact that tax legislation does not impose the reliability of rent and sales prices. Looking at the Italian context, in particular the art. 42 of Constitution, referring to an economic asset: “Ownership is public or private. Economic assets belong to the State, to entities or to private individuals. Private property is recognized and guaranteed by the law, which determines the methods of acquisition, enjoyment and limits in order to ensure its social function and make it accessible to all ”.

From a real estate perspective, Italy enter in the pandemic crisis in a better shape than it in the last global financial crisis: more solid fundamentals, a record high in 2019, huge amounts of liquidity to be deployed in the real estate sector, at least €20 billion, according to recent investment interests Investigation by Cushman & Wakefield, Italy. Milan attracts unprecedented capital flow from foreign investors and a number of regeneration projects are being reshaped city, which is moving outside the municipal boundary, in order to getting bigger and bigger: “Greater Milan”.

All these are part of the factors that made the data coming from the first half year better than the expectation and probably will continue to support the real estate sector in the coming months. The investment has been supported also by last year standing at approximately €4 bn, with a reduction 25% lower than last year volume. Investors have changed their investment horizon, with a particular attention to the long-term view. Looking also to the consumer view, they have surprised positively the market. In fact, there's the intention to come back to "normality". Although people are scared about the spread of the virus at the moment, but we have to live with it. Since the end of the lockdown, retail sector has shown a recover of 80% of the pre-covid level and people have shown their preference in physical shopping, despite the enormous growth of the online retail during the pandemic period. All this info gives an important provision: people will be probably focus on essential shopping.

During the analysis, we have seen a decrease in number of students and also in building destinated to school's use, looking for the period that goes from 2015 to 2020.
Looking at different articles, sector's studies and government projections, this reduction could be caused by:
• A reduction in education expenditure: this could be provided by the report of Department for the planning and coordination of economic policy of Italy, which show us that in the previous period of the one we are taking into account (ref. 2010-2014), the public investments in Italy have suffered a decline. Looking at the general data, the share of GDP allocated to pre-primary, primary and secondary education is broadly in line with EU standards, expenditure on tertiary education is the lowest in the EU, both as a percentage of GDP (0.3% vs 0.8%) and also looking at the proportion in terms of government expenditure (7.7% vs 16.4%) This also confirmed by the fact that in Italy over three-quarters of the expenditure in education was spent on employee compensation in 2018 (represent the 76% of the total, instead of the EU average of 65%), while expenditure on intermediate consumption and gross capital formation were well below the EU average (10% and 3% respectively; EU 13% and 7%).
• A low level in the quality of buildings, services and education: focusing on this topic, the Italian government, we could say that they put in act interventions of the current legislature concerned: the provision for the adoption of a extraordinary plan for the adaptation to the fire regulations of the schools, at the same time deferring to the December 31, 2022 the deadline for the adaptation, and of a national plan of efficiency improvements energetic; the modification of the procedure for identifying the interventions to be financed, respectively, for the construction of innovative childcare centers and innovative schools in the inland areas of the country and the allocation of resources to the same interventions. The forecast that, from 2018, the resources of the Fund for extraordinary interventions of the Presidency of the Council destined to interventions of structural adjustment and anti-seismic of the schools are divided according to the criteria of the national three-year programming of school building interventions, defined (later) within the framework agreement signed on 6 September 2018.

Subsequently, in the session of 6 September 2018, the Unified Conference had expressed a favorable opinion with recommendations on the text of the Framework Agreement aimed at defining the criteria for the distribution of the resources intended for school buildings in the three-year reference period of the 2018-2020 national programming, as well as to streamline procedures and speed up the disbursement of funding for the implementation of interventions in the sector of school building. In particular, the Agreement provided that in the three-year period 2018-2020 all the resources for school buildings had to be distributed taking into account the following criteria:

- Number of students: 43%.
- Number of buildings: 42%
- Seismic zones: 10% (with differentiation in the 4 zones: zone 1: 40%; zone 2: 30%; zone 3: 20%; zone 4: 10%);
- Crowding of the structures: 5%.

Furthermore, the Agreement provided that the resources managed by MIUR in the three-year period 2018-2020 had to be disbursed directly to local authorities and that the MIUR undertook to identify different terms for the award of works by local authorities, taking into account the planning levels. The extension of the possibility of stipulating the so-called "EIB loans"(which are loans that the Italian government gives for Extraordinary Interventions for school Buildings) also to interventions included in the three-year programs subsequent to that of the three-year period 2015-2017. The institution in the state forecast by the Ministry of the Interior of the fund «Nurseries and Infant Schools; the introduction of simplifications to speed up interventions; the modification of the regulations for the allocation of the quota of 8x1000 of IRPEF revenue destined for interventions relating to public school buildings and the establishment of one a specific section of the Single Fund for school construction, intended to finance urgent needs e non-deferrable relating to the same building». Resources were also allocated for school construction to municipalities and provinces.

• The high level of “Early School Leaving” (ESL): according to the data provided by OCSE, is on a declining trend, but at the same time is the highest in the EU, particularly in the south ad among the foreign-born population. The national target is 16% but remains well above the EU average of 10.2% that falls considerably short of the EU 2020 benchmark of 10%. ESL rates vary widely across regions, from 9.6% in the northeast to 16.7% in the south. Boys have a higher level of leaving than girls (15.4% vs 11.3%). At 32.5%, the ESL rate for foreign-born 18–24-year-olds is three times as high for natives (11.3%) and looking at the EU average of 22.2% we could say that is considerable higher.

• The impact of Covid-19, that we will discuss deeply in the second chapter of the thesis; now we would just to say that the situation generate by the pandemic, have shown all the difficulties and critical issues of the Italian system (first of all, infrastructural problem related to internet connection, but also teachers knowledge of the IT systems and the difficulties for a lot of family in giving to their child the instruments in order to attend the lessons).

These are important information for a potential investor, that are looking for an investment to build an international school, because:

• We could assume this reduction in number of students because of the few and inefficient services that the state school in Italy offers.

• Which could also be linked to an unconvincing training offer for the new generations, who are therefore more likely to enter the world of work in conditions, probably, favorable more to the employer than to the workers.

• In the long term, this can lead to a serious reduction in specialized personnel, leaving important positions free, from both an economic and strategic point of view.

Over the past 20 years, the private education sector has taken on an increasingly important role in both primary and secondary school. A quarter of the students in the world attend private schools run by specialized operators who present a training offer with high technological value, implemented EdTech solutions in schools In Italy, numerous factors contribute to increasing the demand for private education:

• Delays in updating teaching, especially in comparison with other countries developed, with a teaching staff often linked to frontal teaching and few cooperative teaching programs

• Organization of space and time not suited to the current needs of students (e.g., more sharing spaces, more workshops, more technology)

• Educational programs with little focus on scientific and technological subjects (STEM: Science, Technology, Engineering and Mathematics)

• "Sequential" training model, with school & university course disciplinary and subsequent didactic training (theoretical and practical), which represents an anomaly in Europe. Germany, France, Spain, and Finland instead adopt a "parallel" model with disciplinary training and theoretical didactic training that is alternate with training periods

• Insufficient teacher training, with only 33.4% having trained in the 3 previous months (vs 87.6% in US, 80.6% in UK, and an OECD average of 50.9%)

• Old building heritage with an average age of 52 years (e.g., 1/3 built before 1963 and 1/3 between 1964 and 1979)

Looking at the previous data, we could say that the sector is really attractive for investors. In fact, between 2015 and 2018, the private school sector attracted the interest of numerous investors, especially institutional ones. The evaluations of K 12 were positively affected by this trend, showing an increasing trend in the multiples of the Ebitda of this sector (from 8 x in 2013 to 12 x in 2018). The intrinsic characteristics of the sector, which make it particularly attractive to investors, also institutional, are typically of infrastructural investments, which are:

• Impact investing: the education sector is intrinsically related to the social impact and this is a characteristic of ESG investments,

• Resilient sector with high growth rates: sector with low correlation to the trend of economic cycles,
• Long-term stable and predictable cash flows: K-12 students have an education of at least 13 years,
• High barriers to entry: barriers due to national / international regulations,
• Protection against inflation: fees increase as inflation increases,
• Negative working capital: the fees are paid in advance by the families and the costs incurred only subsequently.

Then, in the second chapter, I focus on the ESG standards and the most important certification that building

The acronym ESG stands for Environmental, social and governance; represent a series of standards that companies that decide to operate in a careful way towards society and the environment must follow, in order to identify those investments that meet these criteria. They therefore measure the impact that an investment can have on the environment, social and governance, and take the form of a series of standards that should inspire the company's operations. The criteria were first introduced in the United Nations document renamed Principles for Responsible Investment (PRI) in 2006. At the time they were introduced, there were 63 investment companies, with an asset under management value of approximately $6.5 trillion which respected the ESG criteria. As of June 2019, there are 2450 signatories with an asset under management value of around $80 trillion. The focus on ESG is growing more and more over time, as more and more institutional investors want their companies to commit to achieving these goals. The logic behind the "E" represents the way in which companies care about the environment in which they operate and how they manage the effects deriving from these impacts, and consequently, how they are compensated. The logic behind the "S" refers to the social impact that the company's business has, and the relationship with all the operators who relate to the company (example: employees) or who are in some way connected to the company and that therefore "suffer" the consequences of their activities. Finally, the "G" refers to all the principles that must inspire company management and governance, such as the gender gap, transparency in decisions and respect for minorities. According to the guidelines of the European Green Deal, by 2050 all member countries must reach a circular economy, with the goal of zero emissions. For example, the United States has set a goal of decarbonisation and zero emissions by 2050. Countries are also putting in place laws and regulations that penalize non-ESG companies, as they are causing increasingly noticeable damage to the environment and economies. In April 2021, two new initiatives were announced: the Net-Zero Banking Alliance and the Glasgow Financial Alliance. The first brings together 43 banks from 23 countries with $ 28.5 trillion in assets that will be used to meet the goals of the Paris agreements.

All members must adhere to three objectives, which are:

• Transition the operational greenhouse gases emissions to align with the pathways to net-zero by 2050.
• Set 2030 targets and 2050 target, with intermediary targets to be set every 5 years from 2030 onward.
• Engage with their client’s own transition and decarburizing, promoting real economy transition.

To verify the level of integration of the ESG criteria, ratings and standards were issued based on the data collected, thus giving an ESG score.

This score is required by investors to understand how the company relates to ESG factors and the tools it uses for its investment strategies. ESG ratings give an evaluation, in summary, which indicates the compliance of a given company with respect to social, environmental and governance issues. These ratings are drawn up by various agencies that specialize in collecting the relevant data.

ESG rating is also an important indicator for investors because it allows them to have a deeper understanding of the company and its sustainability. Companies are increasingly interested in ESG indicators and standards, and these companies are also considering these indicators to obtain positive feedback from the external public. As a result, investors have become very sensitive to these (ESG) issues, so in order to continue to raise funds from shareholders, companies must also comply with ESG standards. Otherwise, they will lose investors and consumers. To define responsible and sustainable investment, it is necessary to create value for investors and companies, and integrate financial analysis with ESG factors through a medium- and long-term strategy. The focus on ESG parameters involves the company's new strategic choices and new methods that are still being developed. Among them, the interest characteristics of ESG parameters and climate change, waste reduction and better management of resources, product presence and related threats can ensure and communicate the reduction of the environment Social and political commitment to influence.

The ESG analysis of the real estate sector (Propco) will be conducted through the research and analysis of the main certification standards (CS) of building environmental assessment, especially BREEAM and LEED, and provide suggestions on how to effectively use their potential for the development of sustainable schools. Contribute. The main difference between BREEAM and LEED (major sustainability program) is the certification process. BREEAM has trained assessors who assess the evidence according to credit standards and report it to BRE. BRE verifies the assessment and issues certificates. Although LEED does not require training, if you use an accredited professional (AP), you can earn credits. The role of AP is to help gather evidence and provide advice to customers. The evidence is then submitted to the US-GBC for evaluation and issuing a certificate. Both solutions share common components. The early involvement of the assessor or AP in the design phase facilitates the project and the final rating. Both of these options are driving the market to improve architectural design. We can also highlight the most important advantages and disadvantages of these two certifications:

• BREEAM

Strengths: • Allows comparison and benchmarking of different buildings • Independently audited • Adjusted to UK legislation and UK culture

Weaknesses: • Very exact requirements • Complex weighting system • Market profile • Cost of compliance

• LEED

Strengths: 1. Strong marketing gets the message through 2. Lots of information available 3. No need for an assessor and training

Weaknesses: • Based on US systems • Intense documentation required • No independent audit of the assessment • Mixing building function and form is difficult to assess

In particular, I focus on LEED certification, which is the most attractive and also the one most required from private schools.

The Green School strives to succeed on three pillars:

1. Reduce environmental impact and costs: Green schools reduce their environmental impact by reducing energy and water use, reducing fossil fuels used in transportation, reducing waste entering landfills, and protecting natural habitats.

2. Improve the health and performance of occupants: The green school protects the health of students and teachers by ensuring a clean and healthy indoor environment in the school, as well as programs and services that provide good nutrition and sports activities.

3. Improve sustainability: Green schools teach students about sustainability and the environment, and provide them with tools to solve the global challenges we face now and in the future. Green schools support sustainability literacy through curricula and teaching practices that are interdisciplinary, place-based, and rooted in the real world. 3.1 Benefits for teacher and students The green school building creates an environment that makes students and teachers more comfortable, less prone to illness, and more focused on teaching and learning. The quality of school facilities is often overlooked as the main factor affecting students' academic performance. However, school buildings are not just places of learning-they can also help or hinder the learning process:

• Exposure to toxins: Known toxins have no place in schools, where contact with young children can cause serious consequences. Recently, lead and other heavy metal pollution in drinking water has attracted attention, and several states have passed laws requiring schools to test their drinking water sources. In addition, many chemicals found in pesticides and cleaning products are not suitable for inhalation or skin contact, and are especially harmful to children. Green schools are those schools that take measures to reduce the risks of students and teachers, such as the use of green cleaning, integrated pest management, and green procurement. The Green Class Professional Certificate Program has more information about these school programs.

• Indoor air quality: Studies have found that there is a relationship between lower ventilation rates and increased absentee time due to respiratory infections, increased incidence of sick building syndrome, and increased school nurses visiting doctors due to respiratory symptoms. In addition, improving the environmental air quality can promote the well-being of teachers.

In a survey of 500 teachers in New York State, more than 10% of teachers reported that they were caused by headaches, drowsiness, eye and throat inflammation, congestion, and other symptoms caused by dust, moisture problems, and other irritants. The effective teaching ability has been negatively affected. By improving Indoor air quality, green schools can improve the health of students, faculty, and staff, thereby potentially reducing sick leave. In addition to the positive impact of keeping students and teachers in school, Indoor air quality also has a direct impact on student performance. In one study, students in schools that were unable to achieve the lowest ventilation rate were more likely to perform poorly on math exams. Researchers found that when the outdoor air supply rate (more fresh air) increased, the task speed of students aged 10-12 increased significantly

• Acoustics: Optimizing classroom acoustics so that children can hear is the basis of learning. Many studies have confirmed the importance of low background noise levels and better speech intelligibility in maintaining acoustic conditions suitable for student learning. Studies have shown that students' memory, attention and other cognitive processes develop slowly and are sensitive to chronic noise exposure. Since 2014, more than 20 studies have shown that there is a negative correlation between environmental noise exposure and children's learning outcomes and cognitive performance. The green school provides an environment that reduces interference and encourages participation. It combines high-quality sound-absorbing ceilings, lined pipe systems and heating and cooling systems with appropriately placed vents to reduce background noise in the classroom.

• Thermal comfort: A comfortable indoor temperature can increase work efficiency and make students more alert. In a 2016 study of the high-stakes test scores of 75000 students in New York City, researchers found that for every 1 degree Fahrenheit increase in temperature, test scores fell by 0.2%. Although it looks small, the result means that students are 12.3% more likely to fail the exam on 90-degree days than on 75-degree days. Another study found that maintaining adequate ventilation and Thermal comfort can increase test scores from average to "recommended performance."

•Daylight: Studies have shown that when natural light is lacking, children's melatonin cycle is disturbed, which may affect their alertness during school. A 2013 study analyzed data from more than 21000 students and found a significant positive correlation between classroom lighting and better test scores and student performance. Daylight also plays a vital role in the behavioral development of young students. A 2014 study evaluating daylight in preschools found that there is a significant relationship between students' social behaviors and classroom daylight conditions. The study also found a close relationship between the improvement of cognitive skills and the daylight conditions in the classroom. Skylights and large windows allow daylight to enter the green school, thereby improving students' health and academic performance.

• Get close to nature: Extensive research has shown that there are many benefits to ensuring that young people Get close to nature. The Children and Nature Network has compiled a research library to explore this in-depth information about connections to behavior, academics, health, community, and other positive outcomes.

Green buildings are those buildings that provide green spaces and outdoor views for people indoors. In addition, a green campus, nature-based games and meaningful nature experiences are the foundation of a green school. It cannot be ignored that green buildings can be used as teaching tools and provide real examples of concepts learned in the classroom. Teachers of green schools can use their buildings as the basis for project-based experiential learning. Green schools provide a clear opportunity to connect students with environmental and science, technology, engineering, and mathematics (STEM) education courses, and they can be used as tools for interactive courses across all disciplines. For example, students majoring in mathematics can track and map utility cost savings, students majoring in science can analyze and compare the differences between environmentally friendly cleaning products and traditional cleaning products, and students majoring in humanities can discuss the impact of the community on their environment. Every student can benefit from the opportunity of hands-on learning, which demonstrates the interconnection between people, the built environment, and natural systems 3.2 Benefits in terms of budget Energy efficiency and utility cost savings: The EnergySmart School of the Department of Energy reported that K-12 schools spend more than US$8 billion on energy each year, making energy the second largest school operating expenditure after personnel costs. There are many sources of utility costs saved by green schools, including energy-efficient heating and air-conditioning systems, energy-efficient lighting and occupancy sensors, daylighting strategies, water-saving devices, and lower operating and maintenance costs. If all schools are renovated or built in accordance with basic energy efficiency principles, the total energy saved in the next 10 years can easily reach 20 billion U.S. dollars The construction cost of a green school can be equal to or lower than the construction cost of the district K-12 and operate within the budget of the existing facilities. There are examples of schools all over the country obtaining LEED certification within the area average cost, even for early adopters. According to an interview with the district's sustainability manager in 2016, the last nine schools built in Virginia Beach City's schools have passed all levels of LEED certification, and the cost in the area is 8% to 34% lower than the district cost. River Crest Elementary School in Wisconsin is a LEED gold school, and its construction cost is 29% lower than the regional construction cost. Fossil Ridge High School in Colorado is the third LEED-certified public high school in the country. At a construction cost of $128 per square foot, it is one of the cheapest schools in the area built in 2004. Evidence from literature searches shows that high-performance or green buildings can significantly reduce energy use and water consumption. The cost savings associated with reducing energy and water use will vary by geographic area, climate zone, and building type. 13 of the 25 studies evaluated by the committee focused on measuring the actual energy use of buildings based on utility bills. All 13 companies have found that high-performance or green buildings (that is, on a group of buildings) use 5% to 30% less energy on the site than similar traditional buildings. Six studies that conducted some assessments of water use found that high-performance or green buildings consume on average 8% to 11% less water than traditional buildings. School districts that construct and operate green buildings can see additional cost benefits In addition to energy and water conservation.

The maintenance costs of the 22 buildings examined in the US Department of Energy's Pacific Northwest National Laboratory study were nearly 20% lower than typical commercial buildings. In addition, the improvement of air quality in green schools has been shown to be related to student absenteeism. Even a small reduction in absenteeism can greatly improve the school budget, because most of the school's operating budget is directly dependent on the average daily attendance rate (ADA). EPA also reported that active Indoor air quality management is a feature of green school maintenance and can reduce remedial costs and potential litigation faced by school districts. 3.3 Benefits for Communities • The school is the center of community life: school buildings can serve as valuable community infrastructure before and after the school bell rings every day. The facility can often be used to host community meetings and events, weekend markets, and disaster relief shelters. Therefore, green schools not only affect the school community, but also help educate neighbors about sustainable living and develop the social infrastructure of the community. • Green schools improve community behavior: In a survey of occupants of green school buildings, 71% of respondents "see evidence of improved student behavior, significantly reducing violence, vandalism, and bullying." Independent research on positive behaviors of children in renovated green campuses in low-income urban communities confirmed this, finding that injuries were reduced, a sense of security increased, bullying and gang activities were reduced, and physical activity and social interaction remained positive until 32 months after renovation. In another survey of green school leaders, 99% of the principals interviewed said that student participation has increased, and 77% of the respondents said that community participation has increased. • Green schools strengthen learning by cultivating local experts: building and operating greener schools can improve the professional knowledge level of the community by providing new business and training opportunities. Local builders and facility managers can help students track the energy savings of using solar panels. You can invite landscape architects and biology students to conduct research on native plants, soils, and wildlife habitats. Students become ambassadors of social and environmental responsibility, educating their families, friends and communities on the value of sustainable lifestyles. • School investment increases property value: Research shows that investing in public school infrastructure can increase property value, exceed borrowing amounts, increase enrollment, and help rebuild confidence in previously troubled areas or schools. According to the National Association of Realtors, the quality of the school district is the decisive factor for 26% of all home buyers and 35% of home buyers aged 37-51. In a 2005 survey, Turner Construction found that 87% of school administrators who invested in green buildings reported that improving the image of the community is one of the biggest benefits of green schools. Well-respected schools can increase property value, encourage business investment and create employment opportunities, and become the cornerstone of vibrant communities. 3.4 Benefits for the Planet Buildings are one of the largest consumers of natural resources, using more than 70% of electricity and contributing nearly 40% of US carbon dioxide emissions. According to data from the Global Building and Construction Alliance, they account for more than a quarter of all greenhouse gas emissions, more than the contribution of industry or transportation.

The 130000 schools in the United States serve nearly one-sixth of the nation's population every day. The K-12 public school district has a built-up area of more than 7.5 billion square feet, equivalent to nearly half of all commercial office space in the United States, and an estimated living area of 2 million acres. The impact of implementing environmentally sensitive practices in these facilities may result in a substantial reduction in the use of natural resources. Studies have shown that just improving the energy performance of school buildings can reduce carbon dioxide emissions by as much as 30 million tons, which is equivalent to reducing 6 million cars on the road throughout the year. The LEED building rating system aims to solve the negative impact of the design, construction and operation of buildings around the world on the environment, and ultimately promote the construction industry to have a positive and renewable impact on the environment. The rating system rewards practices such as reducing energy and water use, implementing recycling during construction and subsequent building operations, maintaining local and adaptive landscapes, and improving resilience to climate change. LEED also encourages the purchase of sustainably produced, recycled and recyclable materials and products.

Finally we have, in the last chapter, an overview with an analysis of the Rome International School.
Rome International School (RIS) is a private school founded in Rome in 1988 which has been providing international education in English since 1997. The school obtained, in 2009, the IB Diploma authorization (IB Primary Years Programme since 2012) and is part of the Association of IB World Schools In Italy and the LUISS network. It is also a Cambridge Assessment Center. The school belongs to LUISS Guido Carli until 2018; then, on February 12, 2018, LUISS transfers the business unit relating to the school to RIS S.r.l, a company established in November 2017 with shares entirely held by Pola S.r.l. (100% LUISS). On 10 May 2018, Pola S.r.l. sells RIS S.r.l to a company, to date, which is part of the international group NACE Schools (later renamed Globaleducate). In November 2019, the NACE Group change its name in Globaleducate; it's market leader in the education sector, with more than 50 international school in 10 countries worldwide and online programmes for 25.000 students all over the world. In Italy, Globaleducate is present with schools from ICS Milan, RIS, Southlands International School and Canadian School of Florence. The acquisition by NACE has allowed the birth of the most important international education center in Rome - as well as one of the main In Italy - with 850 students aged 2 to 18 from more than 60 countries. This operation was accompanied by the signing of an institutional agreement with the LUISS Guido Carli University for a collaboration project in the field of training, a unique agreement of its kind. Nace Schools is one of the main international operators that runs private schools in several European countries and in India.

The international group allows the school to offer its teachers and students various opportunities, including:
• Professional development programs for teachers and networking,
• Solid international standards for on-going control and monitoring of the quality of training,
• Extra-curricular programs,
• The possibility of participating in the Nace Olympics, participating in the United Nations, competitions and festivals for artistic materials,
• international exchanges with schools UK The private education sector could be segmented by price range, each with distinctive features.

In particular, RIS is classifiable in the "super premium" category, which is:
• International curriculum IB
• Student Rate equal 8 (there are circa 440 students and circa 52 teachers)
• Highly qualified teacher that typically are native English speakers
• High quality of the infrastructure, with dedicated facilities for sports, music, arts and other non-academic activities
• A holistic development, where students are prepared for top national and international HE institutes. RIS, through its educational programs and extra-curricular activities, promotes the development of a cohesive community of students / parents. Supports and promotes the positive and active commitment of teachers and parents to foster the educational progress of its students.

In fact, it have particular attention to:
• Economic Inclusion: thanks to the Parent Teacher Association, promotes important charitable activities to support less well-off children / students. The initiatives promoted have allowed the RIS to raise funds for national non-profit organizations and international. In addition, the school has a scholarship program («Scholarship Fund Program») for deserving Italian and foreign students with low family income: 4 scholarships (2 for elementary students and 2 for middle / high school).
• Protection of the Environment: In 2016 RIS obtained the Eco-school certification from the Foundation for Environmental Education (FEE). The Eco-Schools program is the most important international program dedicated to environmental education in schools. The school promotes the education of students on eco-sustainability issues.
• Cultural and Social Inclusion: the school organizes dedicated events using the school's spaces, international exchanges, excursions and events for students, even abroad. It also organizes social events that are also accessible to external parties, often hosted in the outdoor areas and in the auditorium.
The Catchment area of Rome International School consider the zone of the city that are distant at least 40/50 min by car from school. The 80% of RIS Students coming from this catchment area.

The characteristics are:

• Area of the city with households with the highest per capita income

• One of the areas of the city with the highest prices per square meter (€4.300 per square meter, 25% above the average of the rest of the city)

• One of the most densely populated areas of the city with 2.200 hb/sqm (vs 2.000 hb/sqm of the rest of the city) and with high population growth rates (+0,2% in the period 2015-2016)

• In the catchment area there are, at least, 21 competitors including 6 schools with characteristics and rates similar to the RIS

Now we focus on the Investment Rationale:

First, we look at Location: The property is located near Via della Camilluccia (Montemario area), one of the most sought after locations for prestigious residential uses. The area is characterized by the presence of several embassies and prestigious villas, also not far from the Foro Italico and Ponte Milvio, which are the meeting places of the city. The area can be reached mainly by road vehicles, as it is not reached by the subway. The building benefits from an excellent location and privacy, which are well integrated with the established use function, also having access from a dedicated internal road.

Then, we look at the Asset: the building is on four floors, connected by stairs and elevators. The floor plan and the structural elements are well integrated and functional for the tenant's use. The asset is equipped with a basement in which facilities are located to support school use.

Finally, we look for the Tenant: RIS S.r.l. is an international school belonging to the Globeducate Group (50+ schools in the world), which occupies the asset under a new lease agreement signed in 2018.

Strategy: Long-term asset holding, benefiting from stable returns generated by a long-term rental fee with one of the leading private school operators nationwide, guaranteeing stable and secure returns and cash-on-cash. Furthermore, a low availability of space for use by schools, qualitatively in line with the present asset, for tenants and investors, should improve liquidity and push up / stabilize market rents in the future. Return from the investment: Long-term stable returns with the possibility of additional leverage. Furthermore, thanks to the full indexation of the rent, these yields are protected from inflation.

During the lockdown period, as highlighted by the conductor's management team, RIS ensured distance learning for all students using the most advanced tools available. The size and quality of the real estate infrastructure in which the school takes place, has allowed the RIS to reopen the school at the beginning of September, resuming teaching in person and ensuring the necessary distancing for students. RIS managed, even in 2020 (post Covid), to maintain a retention rate of 100% on enrolled students. For now, Covid has only slowed down the rate of new enrollments linked to foreign students.

The management of the effects of Covid 19 had limited impacts for the school but, in order to ensure the solidity of the company and the sustainability of the fee even in the presence of pandemic impacts, RIS srl requested, on 27/07/2020, to the lessor a temporary rescheduling of the rents in order to manage the impacts of the Covid 19 crisis.

The tenant and the lessor have entered into an agreement which provides for: • A one-time discount of € 300k as a reimbursement of the rent for the period 01/09/2019 31/08/2020, • A rescheduling of the payment times of the rent for the school year between 09/01/2021 and 08/31/2022 This request, as also indicated in the text of the agreement between the parties, does not indicate risks of worsening the creditworthiness of the tenant nor are, at the moment, configurable, significant liquidity tensions for the tenant. The number of registrations for the year 2020-2021 shows a normalization of the context and the ability of RIS srl to guarantee distance learning services during and after the lockdown period are important elements that contribute to positively assess the tenant's strength.

INTRODUCTION

This thesis have the objective to overview the private education sector in Italy, overviewing also the public education sector and looking at it in a real estate prospective. Despite a slight increase in 2018, Italy's education expenditure is still the lowest in the EU. In 2018, general government education expenditure increased by 1% compared with the previous year, but it is still far below the EU average level, both in terms of the proportion of GDP (4% vs. 4.6%) or the proportion of general government expenditure, of which 8.2% is from the EU Among the lowest (9.9%). Although the share of GDP allocated to pre-school, primary and secondary education is roughly in line with EU standards, higher education expenditure is the lowest in the EU, both as a percentage of GDP (0.3% vs. 0.8%) or as a percentage of government education expenditure (7.7% vs. 7.7%). 16.4%). It is worth noting that although the general government expenditure on education dropped by 7% from 2010 to 2018, the expenditure on higher education dropped by 19% during the same period.

Looking at private sector, Italy have seen an increase in the demand for private education:

- Delays in updating teaching
- Organization of space and time not suited to the current needs of students
- Educational programs with little focus on scientific and technological subjects
- Insufficient teacher training
- Old building heritage

In the first chapter, we have an overview on the real estate market, how it works in general, and then there’s a focus on Italy and on the situation of private and public education sector.

In the second chapter, there are some indication about ESG, which are standards regarding environment, social and governance, that in the last years guided the investor view. As a consequence, there is also a focus on COVID-19 and its impact on the education sector.

In the third and last chapter, there’s a focus on a private international school in Italy, the Rome International School, which is a “super premium” class school situated in the central zone of Rome.

CHAPTER 1: MARKET ANALYSIS

1. OVERVIEW: THE REAL ESTATE MARKET

The real estate market plays an important role in the growth and development of the modern economy. Real estate assets are traded between one or more economic entities, making it possible to use buildings more effectively, increase transparency, promote the inflow of capital and technology, and encourage Specialization and financialization of the sector. In this case, this market plays an efficient role, which is essential in a dynamic economy toward innovation and quality improvement[1].

The Real Estate market is characterized by:

- Demand which is represented by buyers or tenants. On the other hand, the supply is represented by owners who wish to sell or lease the property. There are fewer sellers and buyers in this market than in other markets, which means a lack of liquidity, transparency and standardization. In addition, the real estate market is indeed fragmented, and the two major types of real estate market segments are commercial and residential real estate. The former involves the sale and lease of property for commercial purposes. The latter involves the sale and lease of land and houses to individuals and families.

- Unlike other markets, the real estate market is not homogeneous, and its assets are unique, which means that we cannot find a perfect substitute in this market. The uniqueness of the industry's assets stems from the fact that the value of the asset depends on its location, which of course cannot be changed. Each micro and macro field has its own characteristics. In addition, each building, especially those used for residential, commercial and office purposes, is very different from each other, which makes every transaction unique and non-repeatable. In addition to its location, the real estate is characterized by its price, nearby services such as bus or subway stations, supermarkets and schools, and its structural and architectural features.

- Another important feature of real estate assets is low liquidity, which means that realizing real estate is not easy. The low liquidity is because it is difficult to find buyers who can afford this type of transaction and all other costs associated with the purchase. In addition, the low transparency, that is, the existence of information asymmetry, is due to the existence of many entities in the market and the fact that tax legislation does not impose the reliability of rent and sales prices.

Looking at the Italian context, in particular the art. 42 of Constitution, referring to an economic asset: "*Ownership is public or private. Economic assets belong to the State, to entities or to private individuals. Private property is recognized and guaranteed by the law, which determines the methods of acquisition, enjoyment and limits in order to ensure its social function and make it accessible to all*[2]*".*

[1] G. Casertano, Finanza Immobiliare, Wolters Kluwer Italia S.r.l., 2018
[2] Art. 42 of Italian Constitution

This definition also includes the fact that the property gives the ownership right for the land and anything that is affixed to it.

In Italy, the market is mostly characterized by direct ownership of the assets, compared to the other OECD Country. In the last decade, even though partially, in Italy too is has been started the financing process of the RE sector (here and after **financialization**), following the Anglo-Saxons Countries. The glossary **Financialization** of the RE Market means the integration between the stock/financial market and the RE market. The assets are evaluated not only considering the architectural featuring but also considering the capacity to generate *cash flows/revenues*. Granting that, the RE asset can be *"securitized"* in specific titles representing the financial and economic value.

The "securitization" process implies a change of the traditional yardsticks foresees in the asset's appraisal, because it deems necessary to pass from a **patrimonial** to an **economic-financial** approach. It is broad that sub mentioned approaches is closely related considering that the capacity to generate cash flows depend also to the asset's technical featuring.

The real property means land or property, whatever its intended use (park, home, supermarket, etc.). Every asset has an owner who, depending on the circumstances, it may be a government organization or a private entity.

The RE's appraisal of the property depends on whether the owner is private or public. The market is made up of a variety of a different markets according to uses:

- Residential
- Industrial
- Retail
- Offices
- Receptive

The segmentation is important not only for the general economic evaluations but also for the estimate valuations. A special category of the market is that they belong to the "land". The segmentation is related to different categories, that could be:

- Related to the building

Use Destination	Location	Availability	Building Features
o Residential	o Luxury	o Vacant	o New
o Retail	o Central	o Occupied	o Used
o Industrial	o Semi-central		o Refurbished
o Offices	o Suburban		o To be refurbished
o Logistic			
o Accommodation			
o Health services			

- Related to the "actor" of the process

Vendor Identity	Buyer Identity	Broker
o Private seller	o Private buyer	o Agency
o Construction company	o Companies	o Real estate stock
o Real estate company	o Residential co-op	

The RE market move in a continuing economic cycle. Understanding the general principles of the economic cycle is key to successful real estate investing. Within the same marketplace Office, Retail, Multi-Family, and Industrial properties may be at different phases in the commercial real estate cycle.

This cycle depends on **endogenous** and **exogenous** forces. The first, belonging to the dynamics of the actions taken by the subjects making up the supply and demand of real estate's assets. The second, are not directly dependent on, nor controllable by operators in the real estate market, nonetheless have a significant influence on them.

Endogenous forces include the time lag between the time of commission/design of a new building and delivery/set-income thereof; do not prompt reaction of the bid to the changing needs of the application or wrong answer to the same; very limited transparency in the market.

Exogenous forces include the general macro-economic trends; capital flows in financial markets developments; regulatory environment; attitude of the public administration.

Figure 1: Graphic Representation of the RE Cycle

The RE Industry has a cyclical pattern that consists of 4 phases reiterative:

1. **GROWTH (Raising Market; Growth Accelerating)**

It's the initial phase of the cycle. The demand begins to exceed the available supply, and consequently the rents begin to increase.

The annual rents from lease continue to increase until it reaches the level at which the yield potential of real estate development activities in the territory becomes sufficiently attractive for real estate development enterprises; at that point it begins to consider the possibility of building new units (the rents are close to replacement cost).

Even the prices of existing properties begin to rise due to the increase in the occupancy rate and the simultaneous decrease in the supply of available space.

The managers of real estate could renegotiate rising rents and/or build new properties.

2. **MATURITY (Peaking Market; Rental Growth Slowing)**

We are witnessing a thriving real estate development driven by the stimulus represented by rents rising (and above the cost of replacement). The offer continues to increase until reaches the area of balance or get a partial imbalance where supply exceeds available space the application. If this happens, the rate of growth of rents starts to slow down, and the *vacancy rate* starts a trend reversal.

At a time when the properties are ready for new construction and additional leasable space is to be in the market growth of rents undergoes an abrupt halt and indeed, they are in many cases designed to decrease. At the same time, the *vacancy rate* is growing at no more negligible.

A good real estate property manager must have the ability to perceive the turnaround and then anticipate the moves (e.g., stop new development activities).

3. **FALL (Falling Market; Rents Falling)**

In this phase prices reach a market cycle peak and flatten out, so the real estate market is overpriced; everyone that is going to get in the market is already in, so there are fewer and fewer buyers.

Sellers try to hold out without reducing prices until a few are forced to reluctantly lower their prices a little bit; the buyers at this level feel like they are getting a "good deal". Their emotions are still telling them to buy, even though value is still not there, and key indicators do not signal it's time to buy.

Little do they know what's lurking around the corner in phase 4.

4. **CRISIS (Stabilizing Market; Rents Bottoming Out)**

The fees in this phase are generally very low, there is no new real estate development activities, then the offer remains stable, and there is a high excess space available on the market. This phase is often accompanied by a limited growth in the economy and weak demand for space.

In this phase the market reaches the bottom phase and subsequently, with the slow increase in the demand and with a stable supply (also because of the limited development activities), it again reaches the first phase of the cycle property.
The far-sighted investor may purchase units. In fact, many real estate portfolios are valued by the market at *below the cost of replacement of the underlying properties*.

Another relevant component in the analysis of the RE market is the *timing*; effective market timing (buy low/sell high) is a crucial component of successful real estate investing. While it's difficult to time when a market has reached the bottom of the real estate cycle, noting an upward trend, and acting can translate into strong future returns.

Figure 2: Trend of Market Timing

RE market timing is not an exact science. Several factors, including seller motivation, supply and demand, interest rates, employment trends and population growth can significantly affect pricing.
A solid understanding of the real estate cycle, substantial market area research and the fortitude to get into the market can be hard for the individual, but when you work with Strategic Investment Realty, you are backed by a team of industry experts committed to your investing success.

Seller motivation is one of the factors that can greatly impact the price of a property and the timing of a purchase. The *Buyers Emotional Cycle* below illustrates the range of emotions most people face when purchasing real estate. All sellers were buyers at one point and this same emotional cycle applies.
Therefore, understanding this cycle and taking a contrarian approach can greatly assist you in determining the motivation of the seller which in turn can benefit you when negotiating a purchase price.

Figure 3 - Buyers Emotional Cycle – Source: StrategicInvestmentRealtors.com

2. THE ITALIAN SITUATION

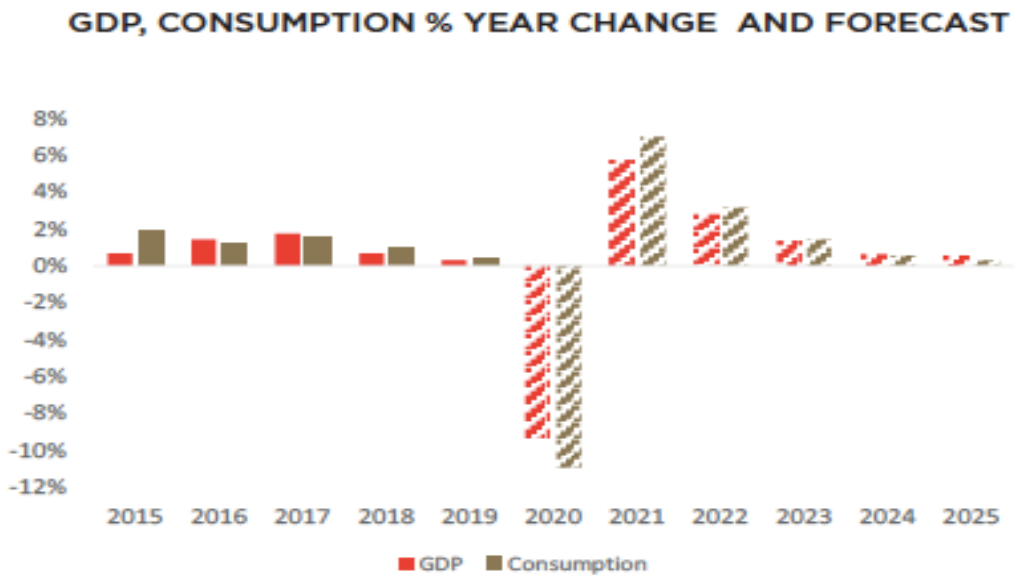
From a real estate perspective, Italy enter in the pandemic crisis in a better shape than it in the last global financial crisis: more solid fundamentals, a record high in 2019, huge amounts of liquidity to be deployed in the real estate sector, at least €20 billion, according to recent investment interests Investigation by Cushman & Wakefield, Italy. Milan attracts unprecedented capital flow from foreign investors and a number of regeneration projects are being reshaped city, which is moving outside the municipal boundary, in order to getting bigger and bigger: "Greater Milan".

All these are part of the factors that made the data coming from the first half year better than the expectation and probably will continue to support the real estate sector in the coming months. The investment has been supported also by last year standing at approximately €4 bn, with a reduction 25% lower than last year volume. Investors have changed their investment horizon, with a particular attention to the long-term view. Looking also to the consumer view, they have surprised positively the market. In fact, there's the intention to come back to "normality".

Although people are scared about the spread of the virus at the moment, but we have to live with it. Since the end of the lockdown, retail sector has shown a recover of 80% of the pre-covid level and people have shown their preference in physical shopping, despite the enormous growth of the online retail during the pandemic period. All this info gives an important provision: people will be probably focus on essential shopping.

GDP: Is the first indicator representing the real economy that shown the impact of COVID-19, and data indicates a reduction of 12.5% compared to last year. The financial measures put in act by both Italian and EU government support a perspective recovery of GDP in Q3 increasing by 11%.

The projections tell that the impact of the crisis will be recover, at least in 2024 (to return to 2019 level). The reduction of family's savings has, consequently, affect private consumption: the uncertainty coming from the pandemic has driven up personal saving instead of a reduction in resources for consumption.



Source: Oxford Economics, Cushman & Wakefiled

Figure 4: Cushman & Wakefield, “Italian Real Estate Overview”, GDP, 2020

LABOUR MARKET: The immediate effect of the pandemic was that companies took advantage of the government benefits of vacations, which were extended to the end of August: as of May, almost one-third of workers received vacation support. This partly explains why the unemployment rate forecast for 2020 is 10.4%, which is consistent with previous years, and is partly affected by the temporary drop in participation rates. Nevertheless, since February, 500,000 employees have lost their jobs. In general, the government and companies are trying to understand the long-term impact on the job market, and it is not yet clear.

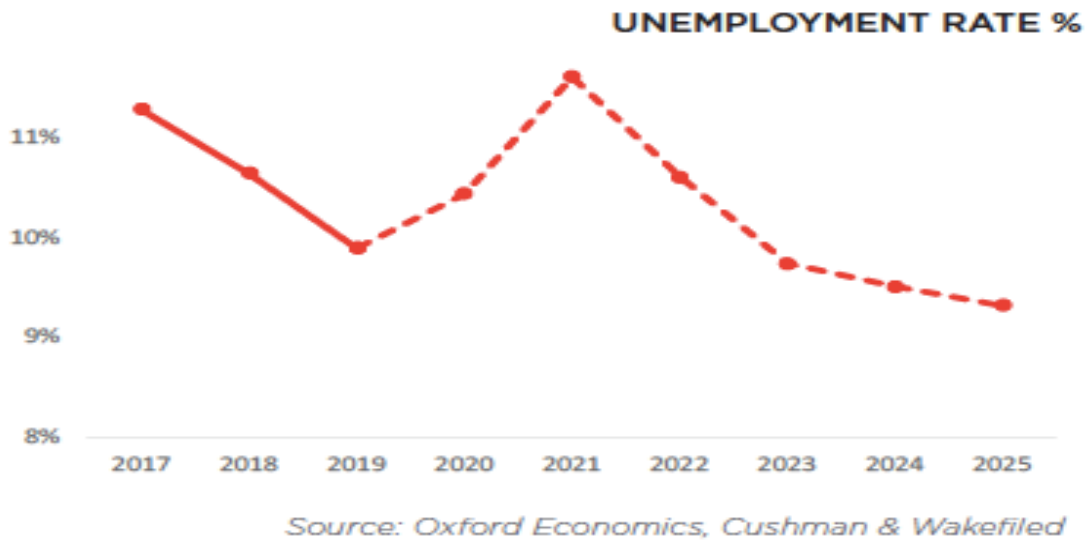


Figure 5: Cushman & Wakefield, “Italian Real Estate Overview”, Unemployment Rate, 2020

CONSUMER, BUSINESS CONFIDENCE. Positive signs from households and businesses, post-containment, testify to cautious optimism driven by the improvement in conditions.

The consumer confidence index has recovered from the past few months and is now above the base value. The future economic and climate components show the highest values, providing positive expectations for the future.

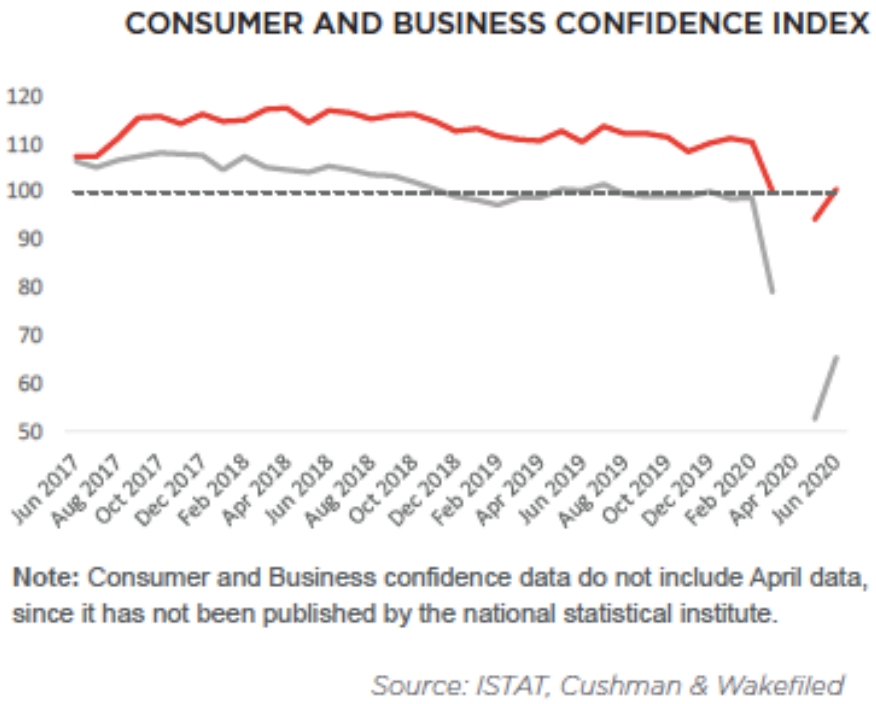


Figure 6: Cushman & Wakefield, "Italian Real Estate Overview", Consumer and Business Confidence Index, 2020

CAPITAL MARKETS: The semi-annual data is 25% lower than last year: the solid pipeline in 2019 supports this result. In response to changes in the sources of capital in Italy, domestic investors have strengthened their positions, accounting for 54% of the total investment in the first half of 2020. Newcomers and cross-border investors are adopting a "wait and see" stance and/or a more cautious approach. Several factors contributed to the half-year result:

- Strong activity in the first quarter, mainly from 2019, only slightly affected by travel and face-to-face meeting restrictions.
- Some structured transactions, such as COIMA / UBI transactions (Approximately €800 million) and Esselunga Investment portfolio (approximately €400 million), of which it only accounts for a quarter of the total for half a year.

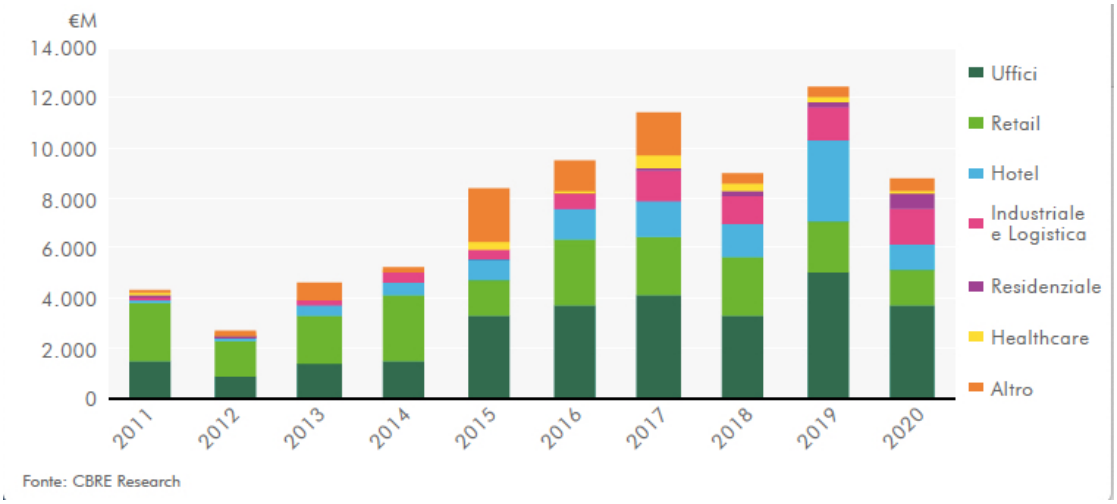


Figure 7: CBRE Research, "Italia – Real Estate Market Outlook", Investment per Asset Class, 2020

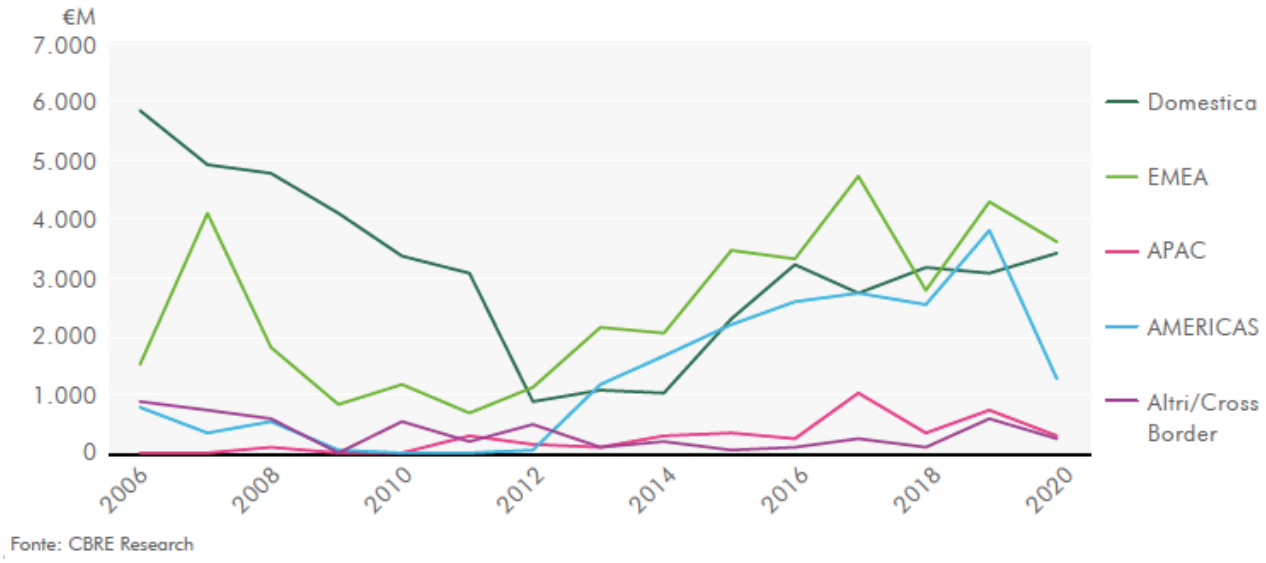


Figure 8: CBRE Research, "Italia – Real Estate Market Outlook", Domestic Investment vs Foreign Investments

"According to the Cushman & Wakefield deal tracker: Core and Core + deals showed more resilience across all the asset classes. Opportunistic deals have no assets withdrawn but 17% of assets delayed while value add deals have 19% of assets withdrawn and 15% of assets delayed. The number of new assets on the market is growing slightly compared with the beginning of the "Phase II" of the pandemic, but the general scarcity is still confirmed."[3]

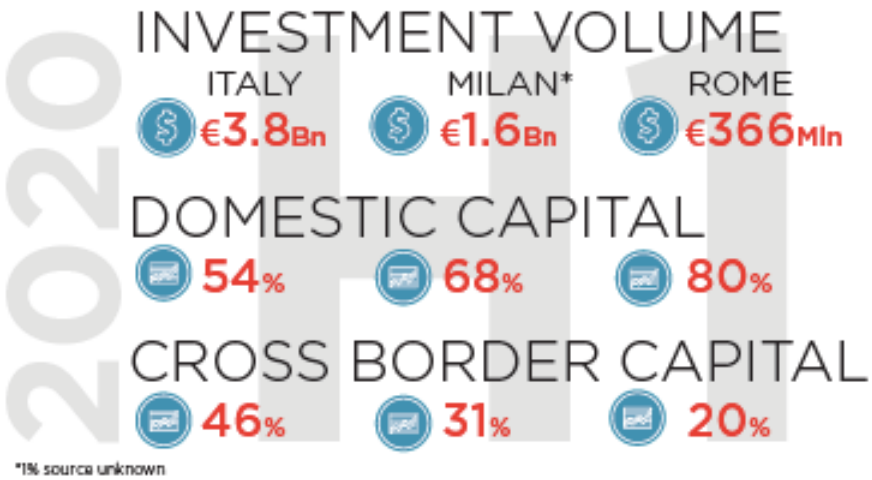


Figure 9: Cushman & Wakefield, "Italian Real Estate Overview", Investment Volume, 2020

[3] Source: Cushman&Wakefield, "Italian Real Estate Overview", pag. 8, 2020

3. THE PUBLIC EDUCATION SEGMENT IN ITALY

First, it's important to say that the overlooking on the sector came from an analysis of "Focus Principali dati della scuola - Avvio Anno Scolastico 2020/2021"[4], which was done on September 2020 by MIUR.

MIUR is the Italian Ministry of University and Research for "*the functions and duties pertaining to the State in the field of school, university and higher artistic, musical and dance training, scientific and technological research are attributed. In these three main channels of intervention, except for areas of competence reserved to other bodies and organizations, the Ministry also performs functions of regulation, support and enhancement of the autonomy recognized to schools, universities, afam and research institutions"*[5].

In Italy there are at least 40.000 state schools, which are most present in Piemonte, Lombardia, Veneto, Lazio, Sicilia, and Campania. The number of students is, circa, 7.500.000 where 268.000 are student with disabilities. The most chosen course of study is the "Liceo" for the secondary grade, with a preference of 50% on all the different course of study offered by the Italian system. Above, I'll show the table from the report:

Indirizzi di Studio	Anno di corso					*Totale*
	1° anno	2° anno	3° anno	4° anno	5° anno	
Liceo classico	34.522	33.450	31.287	29.195	26.660	**155.114**
Liceo linguistico	45.877	47.790	44.884	42.233	40.216	**221.000**
Liceo scientifico	79.915	76.870	72.953	69.550	66.433	**365.721**
Liceo scientifico - opzione scienze applicate	46.169	42.850	39.436	35.911	32.722	**197.088**
Liceo scientifico - sezione sportiva	6.873	6.724	6.037	5.443	4.486	**29.563**
Liceo delle scienze umane	31.505	30.544	28.690	26.913	24.798	**142.450**
Liceo delle scienze umane - opzione economico-sociale	14.774	14.548	13.384	12.570	11.495	**66.771**
Liceo musicale e coreutico	4.393	4.281	4.231	4.051	3.717	**20.673**
Liceo artistico	25.754	24.452	24.081	22.750	21.065	**118.102**
Licei Europei/Internazionali	2.313	2.232	2.094	2.298	2.024	**10.961**
Totale Licei	*292.095*	*283.741*	*267.077*	*250.914*	*233.616*	***1.327.443***
Tecnico - settore economico	66.518	68.672	68.323	62.276	59.220	**325.009**
Tecnico - settore tecnologico	111.485	110.588	103.113	94.673	85.992	**505.851**
Totale Tecnici	*178.003*	*179.260*	*171.436*	*156.949*	*145.212*	***830.860***
Professionale - settore industria e artigianato	849	697	2.586	22.512	20.973	**47.617**
Professionale - settore servizi	4.510	3.719	8.516	70.184	69.877	**156.806**
Professionale - IeFP	4.102	5.186	4.805	1.953	-	**16.046**
Professionale *Nuovo Ordinamento* *	78.555	89.665	88.118	-	-	**256.338**
Totale Professionali	*88.016*	*99.267*	*104.025*	*94.649*	*90.850*	***476.807***
Totale	**558.114**	**562.268**	**542.538**	**502.512**	**469.678**	**2.635.110**

Tab. 1 - Students of second level state secondary schools by field of study and year of course - A.Y. 2020/2021

[4] Source: "Ministero dell'Istruzione - Ufficio Gestione Patrimonio Informativo e Statistica"; Source: "elaborazione su dati del Ministero dell'Istruzione - Ufficio Gestione Patrimonio Informativo e Statistica"

[5] Source: "Ministero dell'Istruzione, dell'Università e della Ricerca – Missione e funzione"

Here, there is also an overview for region and course of study:

Regione	Percorso di studio			Totale
	Licei	Tecnici	Professionali	
Piemonte	86.284	60.291	30.350	**176.925**
Lombardia	182.955	139.168	64.739	**386.862**
Veneto	87.562	78.966	39.360	**205.888**
Friuli Venezia Giulia	23.247	18.532	8.034	**49.813**
Liguria	32.760	17.608	12.247	**62.615**
Emilia Romagna	86.275	69.792	40.569	**196.636**
Toscana	85.695	50.066	32.197	**167.958**
Umbria	21.939	10.828	6.622	**39.389**
Marche	35.568	22.062	14.557	**72.187**
Lazio	157.232	63.148	31.609	**251.989**
Abruzzo	32.380	17.277	7.212	**56.869**
Molise	6.979	4.322	2.083	**13.384**
Campania	164.426	84.462	61.747	**310.635**
Puglia	99.147	64.532	40.945	**204.624**
Basilicata	14.559	8.091	5.815	**28.465**
Calabria	47.863	31.116	18.114	**97.093**
Sicilia	124.865	68.518	47.003	**240.386**
Sardegna	37.707	22.081	13.604	**73.392**
Italia	**1.327.443**	**830.860**	**476.807**	**2.635.110**

Tab. 2 - Students of second level state secondary schools by field of region and course of study - A.Y. 2020/2021

In accordance with the previous table and the analysis done, the Region with the most number of school, a predominance of student that have choose “Liceo” instead of “Tecnici” and “Professionali”, and this represent an important information for an investor that want to establish an international school in our country, and also tell us that the population in the age 11- 16, is in general oriented for a humanistic course of studies, instead of a more practical like a “Professionale”.

To complete the report, it's also included a table that represent the students that are non-Italian citizenship, distributed for region and grade of study. Note that these are provisional data, based on the previous years.

Regione	Infanzia	Primaria	Secondaria I grado	Secondaria II grado	*Totale*
Piemonte	11.686	27.682	17.116	17.484	***73.968***
Lombardia	25.343	85.455	51.537	47.058	***209.393***
Veneto	9.637	36.172	22.309	19.874	***87.992***
Friuli Venezia Giulia	2.803	7.459	4.562	4.530	***19.354***
Liguria	3.691	9.082	5.543	6.725	***25.041***
Emilia Romagna	13.356	39.611	22.544	25.556	***101.067***
Toscana	11.105	24.925	16.069	18.676	***70.776***
Umbria	2.432	5.412	3.613	4.815	***16.272***
Marche	3.936	8.231	5.244	6.815	***24.226***
Lazio	9.141	27.085	17.421	20.710	***74.357***
Abruzzo	2.338	4.788	2.808	3.336	***13.270***
Molise	270	478	286	451	***1.486***
Campania	4.333	9.147	5.667	7.260	***26.407***
Puglia	3.560	6.354	4.140	4.979	***19.033***
Basilicata	579	1.040	574	1.026	***3.219***
Calabria	1.829	3.691	2.512	3.487	***11.519***
Sicilia	4.662	8.598	5.480	7.620	***26.361***
Sardegna	725	1.626	1.161	1.699	***5.212***
Italia	**111.426**	**306.836**	**188.587**	**202.104**	***808.953***

Table 3 - Students with non-Italian citizenship of state schools by region and school level - A.Y. 2020/2021 (Exp.Value)

In the following graphs, the report represents two historical series: the first, look at the change in % of students, classes, and common places with respect of the A.Y. 2015/16; the second is relative at the number of students with disability and of support posts starting from the 2015/2016 school year.

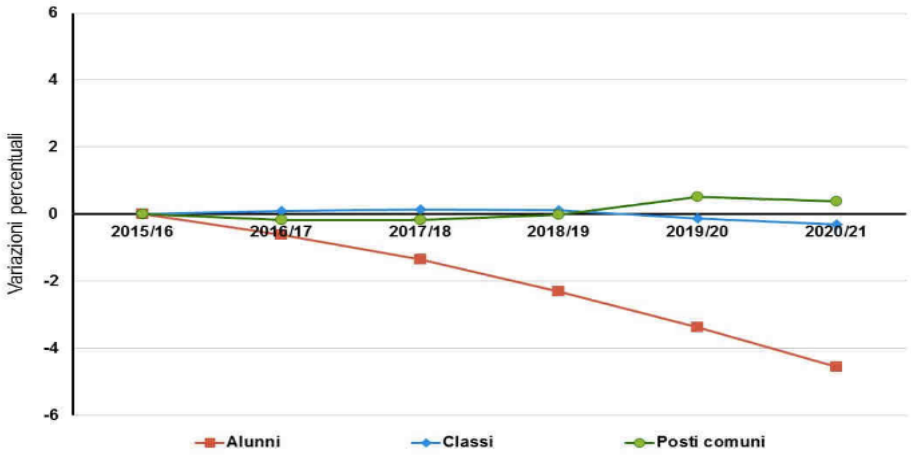


Figure 10 - Historical series of students, classes, and common places - A.Y. 2015/2016 - 2020/2021 (percentage change compared to the 2015/2016 academic year)

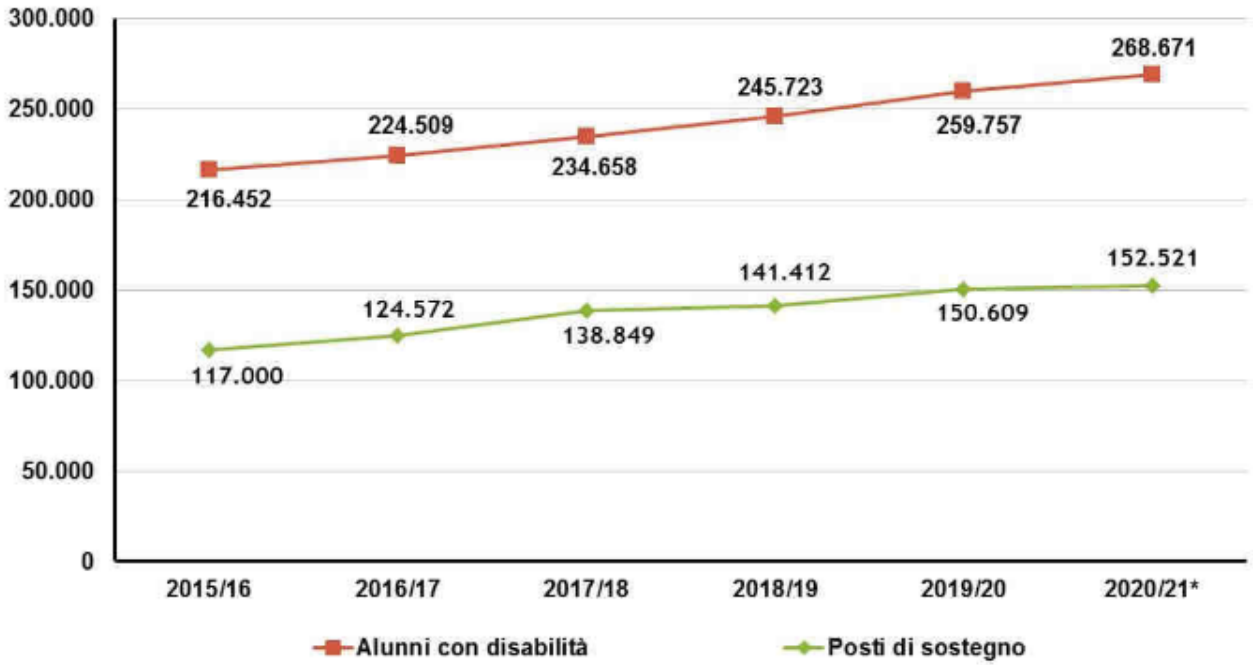


Figure 11 - Time series of students with disabilities and support posts - A.Y. 2015/2016 - 2020/2021

Now, it's possible to focus on the Figure 4; looking at the trend of the time series, we could first assert that something went wrong during the last 5 years, because there's a constant trend for class and common places, but a decreasing trend for students. Next, we could have a looking at the numbers, coming from Istat, which is the "*National Institute of Statistics, the main producer of official statistics. It operates in full autonomy, in continuous interaction with the academic and scientific world*":

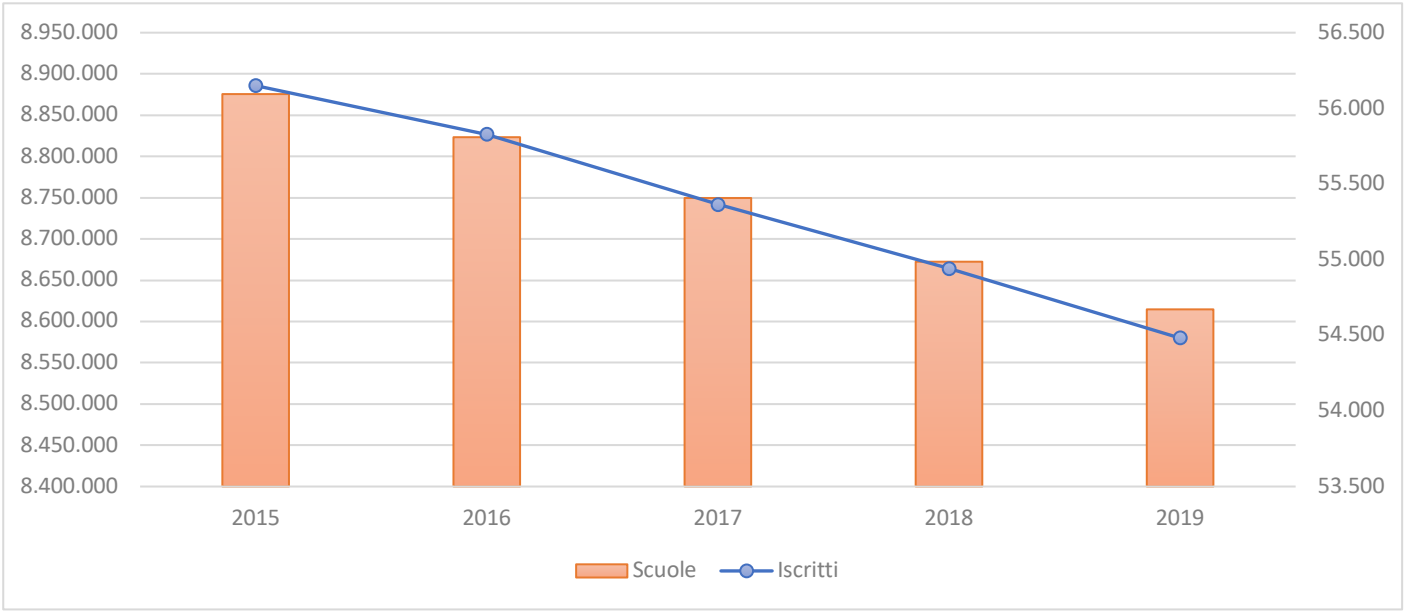


Figure 12 – Time series of students and school in Italy – A.Y. 2015/2016 – 2019/2020

As we can see from the graph, there was an important reduction in the number of student (-3.44%) during the period, and a reduction of 1423 in terms of building. So, we could say that the reduction of building is a consequence of the reduction in the n° of students, but the question is why?
Looking at different articles, sector's studies and government projections, this reduction could be caused by:

- A reduction in education expenditure: this could be provided by the report of Department for the planning and coordination of economic policy of Italy, which show us that in the previous period of the one we are taking into account (ref. 2010-2014), the public investments in Italy have suffered a decline. Looking at the general data, the share of GDP allocated to pre-primary, primary and secondary education is broadly in line with EU standards, expenditure on tertiary education is the lowest in the EU, both as a percentage of GDP (0.3% vs 0.8%) and also looking at the proportion in terms of government expenditure (7.7% vs 16.4%)

  This also confirmed by the fact that in Italy over three-quarters of the expenditure in education was spent on employee compensation in 2018 (represent the 76% of the total, instead of the EU average of 65%), while expenditure on intermediate consumption and gross capital formation were well below the EU average (10% and 3% respectively; EU 13% and 7%).

- A low level in the quality of buildings, services and education: focusing on this topic, the Italian government, we could say that they put in act interventions of the current legislature concerned: the provision for the adoption of a extraordinary plan for the adaptation to the fire regulations of the schools, at the same time deferring to the December 31, 2022 the deadline for the adaptation, and of a national plan of efficiency improvements energetic; the modification of the procedure for identifying the interventions to be financed, respectively, for the construction of innovative childcare centers and innovative schools in the inland areas of the country and the allocation of resources to the same interventions.

  The forecast that, from 2018, the resources of the Fund for extraordinary interventions of the Presidency of the Council destined to interventions of structural adjustment and anti-seismic of the schools are divided according to the criteria of the national three-year programming of school building interventions, defined (later) within the framework agreement signed on 6 September 2018.

  Subsequently, in the session of 6 September 2018, the Unified Conference had expressed a favorable opinion with recommendations on the text of the Framework Agreement aimed at defining the criteria for the distribution of the resources intended for school buildings in the three-year reference period of the 2018-2020 national programming, as well as to streamline procedures and speed up the disbursement of funding for the implementation of interventions in the sector of school building.

In particular, the Agreement provided that in the three-year period 2018-2020 all the resources for school buildings had to be distributed taking into account the following criteria:

- Number of students: 43%.
- Number of buildings: 42%
- Seismic zones: 10% (with differentiation in the 4 zones: zone 1: 40%; zone 2: 30%; zone 3: 20%; zone 4: 10%);
- Crowding of the structures: 5%.

Furthermore, the Agreement provided that the resources managed by MIUR in the three-year period 2018-2020 had to be disbursed directly to local authorities and that the MIUR undertook to identify different terms for the award of works by local authorities, taking into account the planning levels.
The extension of the possibility of stipulating the so-called "EIB loans"(which are loans that the Italian government gives for Extraordinary Interventions for school Buildings) also to interventions included in the three-year programs subsequent to that of the three-year period 2015-2017.
The institution in the state forecast by the Ministry of the Interior of the fund «Nurseries and Infant Schools; the introduction of simplifications to speed up interventions; the modification of the regulations for the allocation of the quota of 8x1000 of IRPEF revenue destined for interventions relating to public school buildings and the establishment of one a specific section of the Single Fund for school construction, intended to finance urgent needs e non-deferrable relating to the same building». Resources were also allocated for school construction to municipalities and provinces.

- The high level of "Early School Leaving" (ESL): according to the data provided by OCSE, is on a declining trend, but at the same time is the highest in the EU, particularly in the south ad among the foreign-born population. The national target is 16% but remains well above the EU average of 10.2% that falls considerably short of the EU 2020 benchmark of 10%. ESL rates vary widely across regions, from 9.6% in the northeast to 16.7% in the south.
  Boys have a higher level of leaving than girls (15.4% vs 11.3%). At 32.5%, the ESL rate for foreign-born 18–24-year-olds is three times as high for natives (11.3%) and looking at the EU average of 22.2% we could say that is considerable higher.

- The impact of Covid-19, that we will discuss deeply in the second chapter of the thesis; now we would just to say that the situation generate by the pandemic, have shown all the difficulties and critical issues of the Italian system (first of all, infrastructural problem related to internet connection, but also teachers knowledge of the IT systems and the difficulties for a lot of family in giving to their child the instruments in order to attend the lessons).

These are important information for a potential investor, that are looking for an investment to build an international school, because:

- We could assume this reduction in number of students because of the few and inefficient services that the state school in Italy offers.
- Which could also be linked to an unconvincing training offer for the new generations, who are therefore more likely to enter the world of work in conditions, probably, favorable more to the employer than to the workers.
- In the long term, this can lead to a serious reduction in specialized personnel, leaving important positions free, from both an economic and strategic point of view.

All these points represent the beginning of the analysis in the market of private schools in Italy, of their educational offer and of the ancillary services offered to students, which will be addressed in the next paragraph.

4. THE PRIVATE EDUCATION SEGMENT IN ITALY

Over the past 20 years, the private education sector has taken on an increasingly important role in both primary and secondary school. A quarter of the students in the world attend private schools run by specialized operators who present a training offer with high technological value, implemented EdTech solutions in schools.

In Italy, there are at least 53.000 school, and 13.000 of these are private. So, the question is: what is a private school? Looking for a definition from the MIUR: *"Private schools perform a public service and are included in the national education system. For the pupils, regular attendance of the equal school constitutes fulfillment of the compulsory education. The recognition of parity guarantees:*

- *Equalization of the rights and duties of students*
- *The same procedures for carrying out state exams*
- *The qualification to issue qualifications with the same legal value as state schools."*

In Italy, numerous factors contribute to increasing the demand for private education:

- Delays in updating teaching, especially in comparison with other countries developed, with a teaching staff often linked to frontal teaching and few cooperative teaching programs
- Organization of space and time not suited to the current needs of students (e.g., more sharing spaces, more workshops, more technology)
- Educational programs with little focus on scientific and technological subjects (STEM: Science, Technology, Engineering and Mathematics)
- "Sequential" training model, with school & university course disciplinary and subsequent didactic training (theoretical and practical), which represents an anomaly in Europe. Germany, France, Spain, and Finland instead adopt a "parallel" model with disciplinary training and theoretical didactic training that is alternate with training periods
- Insufficient teacher training, with only 33.4% having trained in the 3 previous months (vs 87.6% in US, 80.6% in UK, and an OECD average of 50.9%)
- Old building heritage with an average age of 52 years (e.g., 1/3 built before 1963 and 1/3 between 1964 and 1979)

Looking at data, Global expenditure on public and private training amounts to € 11,000 billion, 14% of world GDP. In 2017, spending on private education reached $6.800 billion. This is the second sector after health, with rates of important growth: CAGR, in 2017 of + 6%. Graphs showing this trend are shown below:

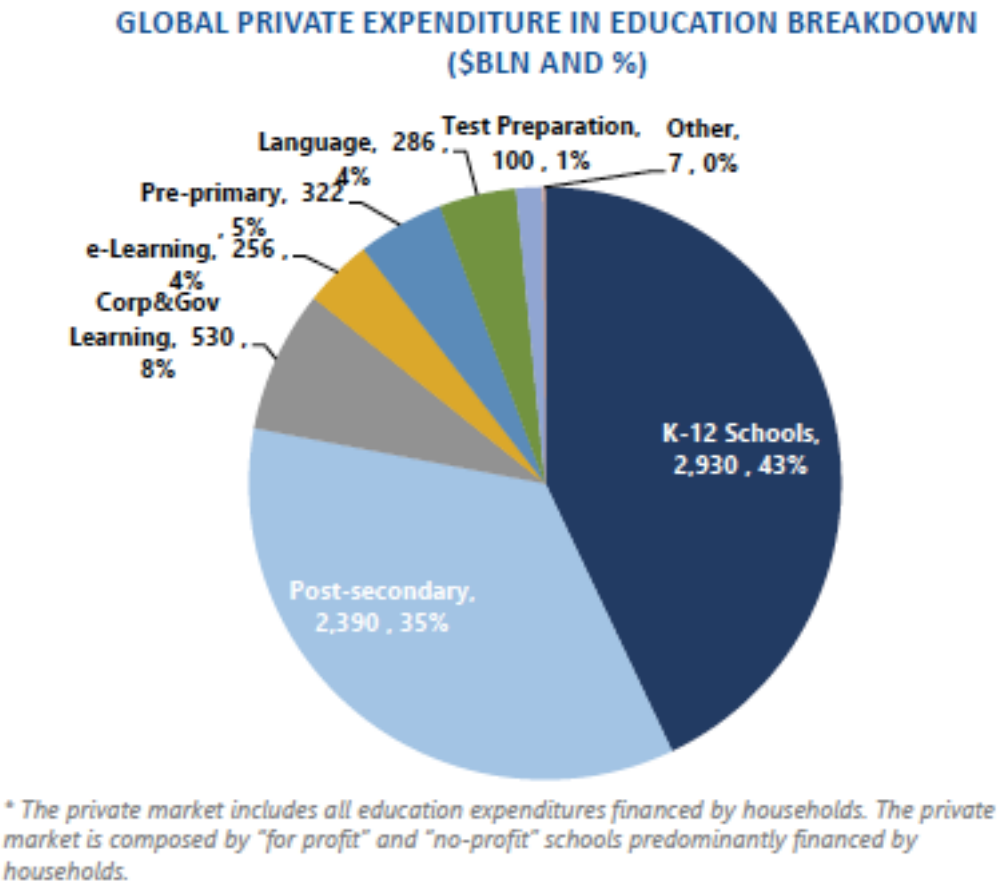


Figure 13: Global Private Expenditure in Education Breakdown[6]

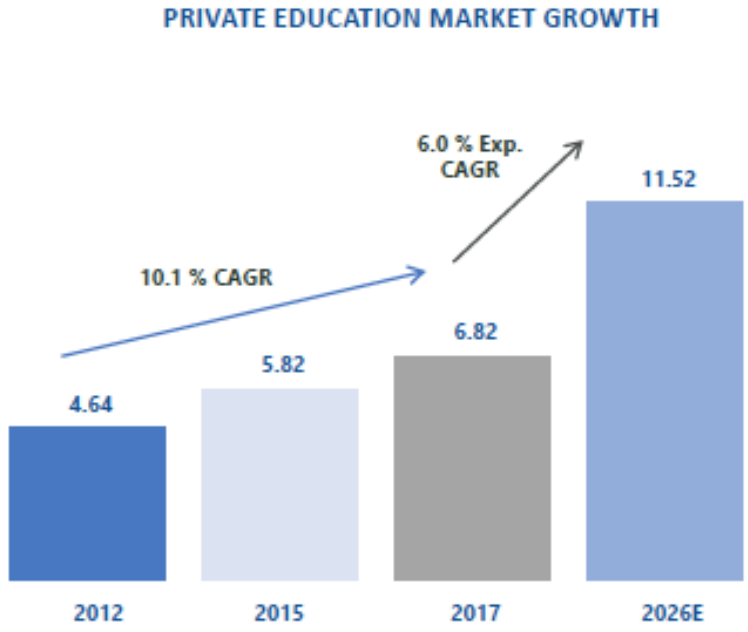


Figure 14: Private Education Market Growth

As the previous chart shown, the private education sector is growing; that is, it is due to a series of factors, such as:

[6] Source: OECD, IBIS Capital

- Public sector with low spending capacity and the need to devote more resources to health care (e.g., aging population).
- Limited public budgets and cultural reluctance to develop digital tools.
- The demand for young learners has changed and the demand for technological training is increasing (including training).

Again, between 2014 and 2017, the growth rates of enrollments in K-12 private schools (+ 3%) exceed the growth rates of the public sector (+ 1%). The main drivers of this trend are mainly 6:

- Public sectors offer inadequate both from an infrastructural point of view and in terms of quality of teaching.
- Increase in middle class incomes: families with higher incomes recognize higher quality in private teaching.
- Need to find English education.
- Increase expats.
- Post-school placement: Many families recognize that private school pathways help achieve better outcomes in terms of university placement.
- Importance of acquiring quality training that it focuses on 21st century skills (learning experience vs frontal teaching), and that it is student centered.

Looking at the previous data, we could say that the sector is really attractive for investors. In fact, between 2015 and 2018, the private school sector attracted the interest of numerous investors, especially institutional ones. The evaluations of K 12 were positively affected by this trend, showing an increasing trend in the multiples of the Ebitda of this sector (from 8 x in 2013 to 12 x in 2018).

The intrinsic characteristics of the sector, which make it particularly attractive to investors, also institutional, are typically of infrastructural investments, which are:

- Impact investing: the education sector is intrinsically related to the social impact and this is a characteristic of ESG investments,
- Resilient sector with high growth rates: sector with low correlation to the trend of economic cycles,
- Long-term stable and predictable cash flows: K-12 students have an education of at least 13 years,
- High barriers to entry: barriers due to national / international regulations,
- Protection against inflation: fees increase as inflation increases,
- Negative working capital: the fees are paid in advance by the families and the costs incurred only subsequently.

CHAPTER 2: COVID AND ESG FACTOR

1. THE IMPACT OF COVID ON EDUCATION SEGMENT

The Covid-19 pandemic gives us important changes in real estate market, but in most of the segment it has given an important boost to a transformation process that has already begun. We can say that it was the "glue" that strengthened the position of Logistics and Residential and increased the uncertainty on Retail; obviously the tourism sector has suffered a strong backlash, but is destined to return to pre-pandemic levels, once the situation is ever closer to normal; the Offices, in addition to being one of the most affected sectors, were also one of the sectors on which various points of reflection were born, such as the configuration of the spaces, the quality and size of these; nevertheless it remains the leading sector of real estate in Italy.

Looking at the numbers, we can see how in 2020 there was a reduction in transactions equal to 29% compared to the previous year, reaching € 8.8 billion of transactions in Italy: in short, it returned to the levels of 2018, after recording a record in 2019.

The drop in foreign investments, which went from 69% to 59%, should also be underlined. this cannot be linked to a reason that is different from that of the pandemic, also because we have seen how domestic investments have undergone an increase, comparing 2020 to 2019; this can be linked to a security vision of the national market now.

Looking at the schools, we have seen how most countries in the world have decided to close them as a precaution to try to reduce the spread of the infection. In Italy, generally each school week represents about "25 hours of face-to-face compulsory instruction time at school (lower secondary school - general orientation), that is to say 2.5% of annual compulsory instruction time". The schools were therefore forced to adopt online teaching tools, aided by teachers and parents.

In support of the difficulties arising from this crisis, below are a series of studies carried out prior to the pandemic by the OECD, which analyzed how schools, teachers and students in Italy were prepared to face its impact, to help policies future to face the crisis.

The spread of ICT systems has made it possible to continue education in this period in which the carrying out of face-to-face lessons was not possible. But to make this possible, students and teachers must be aware of these tools, and master them to make their use effective. one way to understand this is to analyze the use that was made of these tools prior to the pandemic.

The results from the 2018 Teaching and Learning International survey (TALIS) show that on average, in OECD countries around 53% of secondary school teachers requested the use of ICT tools at least frequently. in Italy, this value stands at 47%, which is therefore lower than the OECD average.

To be effective, therefore, teachers should have knowledge of ICT systems acquired during specific courses. About 52% of teachers in Italy say they have ICT skills acquired during their training period, lower than the OECD average of 56%. Instead, about 80% of teachers say they have sufficient skills to support students in the use of information technology, a value much higher than the OECD average of 67%.

Obviously, the knowledge acquired before the beginning of teaching by the teachers can be ineffective throughout their path. as ICT is constantly evolving, it is very important that teachers are constantly updated on changes in these technologies and consequently improve their skills in this sense. In Italy, 68% of teachers declare that they constantly update their ICT knowledge, against 60% of the OECD average. nevertheless, 17% of Italian teachers state that they have a strong need to develop their ICT skills, a value in line with the OECD average of 18%.

A first feedback from this report tells us that the transition to distance learning will be challenging for many teachers.

The introduction of ICT systems in teaching involves the possibility of having adequate resources available for access and use. Many principals believe that the resources available to schools are not sufficient to offer quality teaching using ICT systems in OECD schools.

In Italy, 31% of principals declare that they do not have computer resources available to offer an adequate level of education, which is in line with the value of the OECD average of 25%. a more significant figure is that of the lack of access to an internet connection, which in Italy is indicated by 43% of the principals, much higher than the OECD average of 19%

Other important data is provided to us by the Program for International Student Assessment (PISA), data that tell us whether schools are able to offer an adequate level of teaching using digital resources. these refer to the availability and quality of ICT services and the ability of teachers and students to integrate these services into traditional teaching. in Italy, 46% of students attend a school where there is the possibility of integrating computerized services with traditional education, a value lower than the OECD average of 54%.

Again, 74% of students in Italy are in a school where the principals consider very important the presence of services that can help teachers to learn the use of ICT, a value higher than the OECD average of 65%.

Another data provided by PISA 2018 concerns the time available to teachers to prepare lessons that could be integrated with IT services; in Italy this figure stands at 57% of schools, a value which is just below the OECD average of 61%

Each school has a different ability to innovate, adapt and support teachers, which varies from country to country, but also between individual schools. The forced closure to which the schools were forced, led them to "think" in a different way, leading to solutions that had as their final purpose that of allowing teachers to carry out teaching activities even remotely.

Data from TALIS 2018 tell us that, despite the difficulties encountered by teachers in the initial phase of distance learning, there is still a positive propensity to innovate in most schools in OECD countries. in Italy, this value stands at 70% of teachers, which is just below the OECD average, equal to 74%.

A very important role is played by the principals in terms of support for innovation; in fact, 66% (source TALIS) of them try to implement support activities among teachers, to allow them to implement their knowledge; this value is slightly higher than the OECD average of 59%

Consequently, teachers and principals should coordinate to be able to take advantage of online resources to be able to find information, instructions, and teaching tools remotely between schools. an example is given by teachers' familiarity with online training courses, which can help them communicate information with the school community thanks to computer systems.

In Italy, 49% of teachers declare that they have followed or are following these courses, a value well above the OECD average which stands at 36% (source TALIS)

A further "tool", which is very important especially in times of crisis, are the extra-curricular communities, which can act as support between teachers and principals. Looking to the side of teachers, it appears that 32% participate in these groups to implement their skills; this value is slightly below the OECD average of 40%.

On the side of the principals, this value stands at 44%, and is higher than the OECD average of 37% (source TALIS).

Once the problem of the lessons in person has been solved, replacing, and integrating it through the available platforms and current technologies, the problem of the possibility of accessing the devices remains, which is not equally distributed in the population.

This problem arises above all for those students who live in a difficult socio-economic situation, which therefore prevents them from accessing the devices and which is further aggravated by the Covid-19 crisis, increasing the learning gap.

Looking at the PISA 2018 data, prior to the crisis, not all students could afford access to a computer that they could use for studying and / or working. in Italy, 90% of students declared that they had a computer to use for study and / or work, in line with the OECD average (89%). For students who occupy the lower socio-economic zones, 80% of Italian students had access to a computer, a value that is always in line with the OECD average (78%). However, these values will have undergone negative changes, as the advent of the pandemic will have generated cases where the devices had to be shared with other family members.

The same can be said for the necessary physical spaces that people need to be able to work or study. Fortunately, Italy is on the OECD average for all students, regardless of income, with 91% declaring that they have adequate space in which to study; the same is true for students who are in the lower socio-economic zones, with the value standing at 85%.

As previously said for access to a computer, these values will have undergone a decrease, since this need was also encountered by parents with teleworking, as well as any siblings.

The spread of Covid 19, and the consequent pandemic, has significantly changed the habits of families around the world. Students found themselves studying in situations of uncertainty and fear, and this led to a negative effect in terms of motivation to study and learn.

Moreover, in this context, parents have assumed a fundamental role, having to undertake the role of "motivators" to allow students to maintain an adequate level of concentration.

Very important is the level of endurance and efficiency that the students themselves must achieve their goals even in the most difficult situations.

The PISA 2018 data tells us that, in Italy, 85% of students believe they are able to manage themselves and achieve their goals; a value just below the OECD average which stands at 89%.

Again, 72% of Italian students declare that they believe in their abilities to reach the set objectives, a value in line with the OECD average of 71%.

Looking at students in the lower socio-economic classes, the values change slightly compared to those mentioned above; in fact, 84% of students in Italy believe they are able to manage themselves and achieve their goals; a value just below the OECD average which stands at 86%.

Again, 75% of Italian students declare that they believe in their abilities to reach the set objectives, a value just above the OECD average of 71%.

One way to see how much students are actually involved and motivated in the learning process is given by their learning objectives. The data tell us that 90% of Italian students consider it very important to constantly engage in school (the OECD average is 88%); moreover, 47% believe that their first goal in school is to learn as much as possible. (The OECD average is 47%).

Looking at students in the lower socio-economic classes, the values change slightly compared to those mentioned above. In fact, 91% of Italian students consider it very important to constantly engage in school (the OECD average is 87%). Moreover, 46% believe that their first goal in school is to learn as much as possible (the OECD average is 42%)

Another important factor is the support of parents, who help students in learning and in managing anxiety and stress.

In Italy, 83% of students declare that parental support is very important to achieve their goals and is lower than the OECD value of 89%. the same is true for students who come from lower socio-economic classes, where the value in Italy is equal to 80%, while the OECD average is 85%.

However, help from parents, in certain socio-economic contexts, may be ineffective; this is the case with language barriers. In fact, in Italy, 18% of students stated that the language used at home is often different from that of the PISA test (OECD average is 12%). This difference is seen in the lower socio-economic classes, where in Italy the value is equal to 31%, while the OECD average stops at 19%.

Background and technical note[7]

The information provided in this paragraph relies on OECD publication and existing cross-national datasets on school education from the Directorate of Education and Skills. All the data reported correspond to time periods prior to the crisis. The sources use is the following:

[7] OECD 2020, SCHOOL EDUCATION DURING COVID -19: WERE TEACHERS AND STUDENTS READY?

- Education at Glance is the authoritative source for information on the state of education across OECD countries and several partner countries. It provides comparable data and indicators on the output of educational institutions; access, participation, and progression in education; the financial resources invested in education; and teachers, the learning environment, and the organisation of schools. Data on instruction time refer to a typical full week of instruction without national bank holidays or other planned school closures. The values refer to classroom instruction time, excluding breaks between lessons. It assumes an equal distribution of instruction time between grades in the specified level of education.

- The Programme for the International Student Assessment (PISA) is a triennial survey of 15-year-old students around the world that assesses the extent to which they have acquired key knowledge and skills essential for full participation in social and economic life. Students also answered a background questionnaire that seeks information about the students themselves, their attitudes, dispositions and beliefs, their homes, and their school and learning experiences. In PISA 2018, all 37 OECD countries plus 42 partner countries and economies took part in the study. The PISA OECD average represents the arithmetic mean across all OECD countries.

- The Teaching and Learning International Survey (TALIS) is an international survey of teachers and school leaders on different aspects affecting student learning. The international target population for TALIS 2018 is lower secondary teachers and their school leaders in mainstream public and private schools. For the 2018 survey, 31 OECD and 17 partner countries and economies participated in the study. The TALIS average represents the arithmetic mean across all OECD countries except for Germany, Greece, Ireland, Luxembourg, Poland, and Switzerland.

2. ESG FACTOR IN THE EDUCATION SEGMENT

The acronym ESG stands for Environmental, Social and Governance; represent a series of standards that companies that decide to operate in a careful way towards society and the environment must follow, in order to identify those investments that meet these criteria. They therefore measure the impact that an investment can have on the environment, social and governance, and take the form of a series of standards that should inspire the company's operations.

The criteria were first introduced in the United Nations document renamed Principles for Responsible Investment (PRI) in 2006. At the time they were introduced, there were 63 investment companies, with an asset under management value of approximately $6.5 trillion which respected the ESG criteria. As of June 2019, there are 2450 signatories with an asset under management value of around $80 trillion.

The focus on ESG is growing more and more over time, as more and more institutional investors want their companies to commit to achieving these goals.

The logic behind the "E" represents the way in which companies care about the environment in which they operate and how they manage the effects deriving from these impacts, and consequently, how they are compensated.

The logic behind the "S" refers to the social impact that the company's business has, and the relationship with all the operators who relate to the company (example: employees) or who are in some way connected to the company and that therefore "suffer" the consequences of their activities.

Finally, the "G" refers to all the principles that must inspire company management and governance, such as the gender gap, transparency in decisions and respect for minorities.

2.1 ESG: WHICH ARE THE MAIN GOALS?

According to the guidelines of the European Green Deal, by 2050 all member countries must reach a circular economy, with the goal of zero emissions. For example, the United States has set a goal of decarbonisation and zero emissions by 2050.

Countries are also putting in place laws and regulations that penalize non-ESG companies, as they are causing increasingly noticeable damage to the environment and economies.

In April 2021, two new initiatives were announced: the Net-Zero Banking Alliance and the Glasgow Financial Alliance.

The first brings together 43 banks from 23 countries with $ 28.5 trillion in assets that will be used to meet the goals of the Paris agreements. All members must adhere to three objectives, which are:

- Transition the operational greenhouse gases emissions to align with the pathways to net-zero by 2050.
- Set 2030 targets and 2050 target, with intermediary targets to be set every 5 years from 2030 onward.
- Engage with their client’s own transition and decarburizing, promoting real economy transition.

To verify the level of integration of the ESG criteria, ratings and standards were issued based on the data collected, thus giving an ESG score. This score is required by investors to understand how the company relates to ESG factors and the tools it uses for its investment strategies.

ESG ratings give an evaluation, in summary, which indicates the compliance of a given company with respect to social, environmental and governance issues. These ratings are drawn up by various agencies that specialize in collecting the relevant data.

ESG rating is also an important indicator for investors because it allows them to have a deeper understanding of the company and its sustainability. Companies are increasingly interested in ESG indicators and standards, and these companies are also considering these indicators to obtain positive feedback from the external public. As a result, investors have become very sensitive to these (ESG) issues, so in order to continue to raise funds from shareholders, companies must also comply with ESG standards. Otherwise, they will lose investors and consumers.

To define responsible and sustainable investment, it is necessary to create value for investors and companies, and integrate financial analysis with ESG factors through a medium- and long-term strategy. The focus on ESG parameters involves the company's new strategic choices and new methods that are still being developed. Among them, the interest characteristics of ESG parameters and climate change, waste reduction and better management of resources, product presence and related threats can ensure and communicate the reduction of the environment Social and political commitment to influence.

2.2 STRATEGIES FOR AN ESG INVESTMENT PURPOSE

Seven categories of strategies have been identified as part of the application of ESG criteria:

- *Sustainability-themed investments:* This strategy translates into the selection of assets that are particularly relevant for the sustainability of single or multi-thematic funds. Observing the dynamics in this area allows us to measure the interest of investors in a particular area of sustainable development. In previous reviews, no set of themes dominated, but in recent years, investors have shifted their focus to climate change funds and the water theme.

- *Best Investment Choice:* This strategy allows investors to choose the company with the best ESG score in a particular industry sector. Best-in-class (BIC) portfolios usually include companies that meet both ESG and financial ratings. Other approaches that fall under a similar classification are Best-in-universe12 (BiU) and Best-effort13. One of the main shortcomings of BiU is that in this category we cannot compare all sectors and asset classes as we can with BiC.

- *Excluding holdings, countries, and sectors from the investment field:* This is the oldest SRI strategy because it was used in the early 18th century, when religious groups from the Quakers to the Methodists began to align their investment choices with their Of ethics. At the time, industries where human health was threatened were the focus, and later "exclusion trends" began to include avoiding "criminal stocks," such as companies involved in the production or sale of weapons, alcohol, tobacco, and tobacco. pornography. If a company, department, or country participates in certain activities according to specific criteria, the method systematically excludes the company, department, or country from the permitted investment areas. Common standards include weapons, pornography, tobacco, and animal testing. Exclusions can be applied to individual funds or authorization levels, but are also increasingly applied to the asset manager or asset owner level of the entire asset product range.

- *Norm-based screening:* Allow investors to select companies in their portfolio based on their compliance with international standards and regulations. These norms focus on the areas of environmental protection, human rights, labor standards, and anti-corruption principles, and are contained in international initiatives and guidelines, such as the OECD Guidelines for Multinational Enterprises, the ILO Tripartite Declaration of Principles on Multinational Enterprises and Social policy, the United Nations Global Compact and the most recent "Guiding Principles of Business and Human Rights: Implementing the United Nations." This strategy can be used alone or in combination with other strategies (usually participation and/or exclusion).

- *ESG integration factor in financial analysis:* This strategy is seen as a general agent for the entire SRI industry. This factor may increase investor information asymmetry because it oversimplifies an industry that is becoming increasingly mature and complex in the development process. The past 10 years. In fact, with the spread of SRI ideas, the expectations of ESG integration in terms of assets may grow in tandem with the industry, and with all new concepts—influences, all E, S, and G need to be expressed as a fair transition, and many single Question-must be included. Due to the severe lack of clarity of the parameters that control the integration of ESG factors, it is difficult to assess to what extent the strategies of the same denomination are actually comparable.

- *Participate and vote on sustainability issues:* still the second most popular strategy after exclusion. This strategy has a total asset management scale of 4.8 trillion as of the end of 2017, which actively reflects investors' understanding and interest in active management. In the last review, we emphasized the important link between this strategy and fiduciary responsibility, because it revolves around the relationship between asset managers (shareholders) and their responsibilities to beneficiaries.

- *Impact investment:* The key requirement is intentionality, that is, investors' intention to produce positive and measurable social and environmental impacts; additionality represents a positive impact beyond the provision of private capital; measurement representatives can explain the investment in a transparent manner Financial, social and environmental performance.

The technology used to invest funds through ESG lenses is still developing and mature. The most basic strategies exclude the company, while the more complex strategies combine ESG indicators and goals with financial information. The overview of selected ESG investment methods includes four different types of strategies:

- Negative/exclusion screening: The most common, oldest, and data-driven method in ESG investing is the simplest but least effective way for investors to signal to companies which behaviors should be changed.
- ESG integration: ESG scores.
- Corporate Participation and Shareholder Action: Use equity to allow the company to directly participate in corporate actions, strategies, and commitments.
- Positive/best-in-class screening: Relying on ESG data to identify industry-leading ESG participants.

2.3 THE UNITED NATION ACTIVITIES (PRI, SDGs, IPCC)

The 2030 Agenda for Sustainable Development is an action plan on humanity, planet and prosperity signed by the governments of the 193 UN member states in September 2015. It incorporates 17 Sustainable Development Goals (SDGs) into an action plan on large scale, with a total of 169 targets.

The official launch of the Sustainable Development Goals coincides with the beginning of 2016, leading the world on the path of the next 15 years: the countries, in fact, are committed to achieving these goals by 2030. Four years after the signing of the 2030 Agenda, civil society, businesses, national governments, administrations, and the public have become increasingly aware of the need to adopt a comprehensive approach and specific measures to solve an important problem. Socio-economic paradigm shift.

It invites all countries to commit themselves to formulating their own sustainable development strategies to enable them to achieve the objectives set and to communicate the results achieved in the process coordinated by the United Nations. In fact, every year the UN evaluates each country through the activities of the High-Level Political Forum (HLPF) and national and international public opinion, whose task is to evaluate the progress, results, and challenges of all countries.

The 2030 Agenda presents a complex challenge: since the three dimensions of development (economic, environmental, and social) are closely interrelated, each goal cannot be considered separately, but must be achieved on the basis of a systematic approach, taking into account each other's and it will not negatively affect other areas of development. Only the overall growth of the three components can achieve sustainable development.

SDGs are universal, and they refer to common problems that exist in all countries. Therefore, we call on all countries to contribute to the challenges and put the world on a path of sustainable development, without distinguishing between developed countries, emerging countries and developing countries. This means that every country must commit to formulating its own sustainable development strategy to achieve the sustainable development goals and report its results to the United Nations.
PRI provides research and education, and promotes cooperation to help investors align their responsible investment practices with broader social sustainability goals, as currently defined by the Sustainable Development Goals.

The Principles for Responsible Investment (or PRI) were introduced by the United Nations in 2006 to encourage the spread of sustainable and responsible investment among institutional investors; compliance with PRI (voluntary) involves observing and applying the following principles:

- Incorporate environmental, social and governance (ESG) parameters in the financial analysis and decision-making processes regarding investments
- Be active shareholders and incorporate ESG parameters into shareholder policies and practices
- Require reporting on ESG parameters by the investment companies
- Promote the acceptance and implementation of the principles in the financial industry
- Collaborate to improve the application of the principles
- Periodically report on the activities and progress made in applying the principles.

2.4 EU ACTIVITIES

The European Green Agreement is a new growth strategy aimed at transforming the European Union into a fair and prosperous society with a modern, resource-efficient and competitive economy, no net greenhouse gas emissions by 2050, environmental and healthy Europeans Protected, economic growth is achieved through the most effective and sustainable use of natural resources. It aims to turn climate and environmental challenges into opportunities and protect the health and well-being of citizens from environmental risks and impacts.
Classification regulations are the European Regulation 2020/852 and are an important factor in increasing sustainable investment. Therefore, the implementation of the European Green Agreement is part of the EU's response to climate and environmental challenges.
It provides a unified standard for companies and investors to determine which economic activities can be considered environmentally sustainable, so it aims to improve the transparency and consistency of the classification of such activities, and limit the risk of green drift and fragmentation in related markets.

Generally speaking, greenwashing stands for façade ecologicalism or façade environmentalism. It refers to the communication strategy of certain companies, organizations, or political institutions to establish a deceptively positive self-image in terms of environmental impact. It was invented in the 1980s to describe companies deceiving people into believing that their products are green, when in fact their sustainable impact is smaller than consumers think.

However, investors can still invest freely according to their own wishes, and the classification does not mean that investors have any obligation to invest only in those economic activities that meet specific criteria.

In March 2018, the European Commission released the Sustainable Finance Action Plan, which outlines strategies and measures to establish a financial system that can promote truly sustainable development. From an economic, social and environmental point of view, by promoting the implementation of the Agreement and the United Nations 2030 Agenda for Sustainable Development. The action plan recommends ten actions at the European level:

- A sort of Facilitate the directing of financial investment to a more sustainable economy
- Consider the sustainability of risk management procedures
- Improve transparency and long-term investment.

The action plan also mentions:

- Improve the quality of the company's non-financial reports
- Institutional investors and asset managers need to strengthen sustainability factors and enhance disclosure obligations in investment decisions
- Incorporate sustainability into assigned ratings and market research, as well as analysis of existing practices of credit rating agencies regarding the use of ESG factors
- Integrate sustainability into the prudential requirements of credit institutions
- Create an EU label for green financial products based on the EU classification scheme, enabling investors to easily identify investments that meet environmental or low-carbon standards.

2.5 THE APPLICATION OF ESG STANDARDS: THE REAL ESTATE MARKET

This article deals with the development of tools to conduct sustainability assessments of services provided by the construction and education sectors. In this part of this article, we want to analyze the ESG theme, its application, and its assessment of the entire real estate market (operator) from the perspective of assets (PropCo) and from the perspective of operations and management.

2.5.1 OpCo Side

OpCo, on behalf of the operating company, is responsible for daily operations and management.

OpCo assumes the role of a tenant and pays the rent of real estate assets to PropCo, which owns the ownership of the assets. In other words, OpCo sells products, signs contracts, hires employees, and deals with customers. PropCo owns buildings and holds commercial assets such as real estate.

In addition to defining the tools needed to assess the ESG part of the structural part of the building, this research also promises to assess the sustainability of the services provided, thereby assessing the sustainability of the management part of the building. The application of the ESG standard is crucial because it is first integrated into the operation and management part of the building.

Good applications have a positive impact on people (society and governance) and territory (environment). The reduction of carbon dioxide emissions, energy efficiency, the efficiency of the use of natural resources (such as water), the adoption of policies to deal with air and water pollution, as well as the waste of natural resources and the deforestation of the environment have had a positive impact on people's health and soil health.

Social factors include working environment, union relations, qualitative policies for supply chain control, as well as attention to gender, skills and age, work standards, workplace safety conditions, and respect for human diversity. Rights and fully assume social responsibilities.

Governance involves the ethics and transparency of corporate governance, the diversification policy of the board of directors, the existence of sustainability plans and goals related to board compensation, as well as the control procedures, policies, and more generally the behavior of senior management personnel, and the company’s ethics and cooperation. Regulations.

All these policies are designed to protect individuals in terms of risk management, cost reduction, access to funds, customer relations, human resource management and innovation capabilities.

2.5.2 PropCo Side

The ESG analysis of the real estate sector (Propco) will be conducted through the research and analysis of the main certification standards (CS) of building environmental assessment, especially BREEAM and LEED, and provide suggestions on how to effectively use their potential for the development of sustainable schools. Contribute.

The main difference between BREEAM and LEED (major sustainability program) is the certification process. BREEAM has trained assessors who assess the evidence according to credit standards and report it to BRE. BRE verifies the assessment and issues certificates.

Although LEED does not require training, if you use an accredited professional (AP), you can earn credits. The role of AP is to help gather evidence and provide advice to customers. The evidence is then submitted to the US-GBC for evaluation and issuing a certificate. Both solutions share common components.

The early involvement of the assessor or AP in the design phase facilitates the project and the final rating. Both of these options are driving the market to improve architectural design. We can also highlight the most important advantages and disadvantages of these two certifications:

- BREEAM

Strengths:

- Allows comparison and benchmarking of different buildings
- Independently audited
- Adjusted to UK legislation and UK culture

Weaknesses:

- Very exact requirements
- Complex weighting system
- Market profile
- Cost of compliance

- LEED

Strengths:

1. Strong marketing gets the message through
2. Lots of information available
3. No need for an assessor and training

Weaknesses:

- Based on US systems
- Intense documentation required
- No independent audit of the assessment
- Mixing building function and form is difficult to assess

2.5.3 BREEAM

BRE (Building Research Institute) is a private institution engaged in the research, training and verification of the built environment in the UK. It has been active since 1972. It is headquartered in Waterford. It began to develop the first voluntary sustainability assessment and assessment in 1988. Authentication protocol. The BREEAM agreement aims to assess the sustainability of office buildings and was launched in 1990. Since 2006, BRE has been supported by BRE Global, which manages the BREEAM brand.

BREEAM is one of the main internationally recognized standards for assessing the environmental, social and economic sustainability of infrastructure and buildings. It aims to continuously improve performance and imposes a wide range of stringent requirements that must exist in order for a building to be BREEAM certified. Each surveyed structure will be assigned a level to reflect the performance of the project as measured by the standards and benchmarks. BREEAM ratings range from "acceptable" to "passed", "good", "very good", and "excellent", and are reflected in the series of stars awarded to the hotel.

BREEAM measures the sustainability of structures by monitoring certain categories of elements, such as: energy, health and well-being, innovation, land use, materials, management, pollution, transportation, waste and water. For each category, there are subcategories corresponding to specific goals and reference benchmarks.

2.5.4 KPIs BREEAM:

- Management: Dedicated to the evaluation process (integration, commissioning), construction practices, the impact of construction activities on the site, and the evaluation cycle cost analysis (LCC) and building operation planning of the participation of stakeholders in the process and life.
- Health and well-being: Committed to evaluating sustainable finishing materials designed to improve visual comfort, indoor air quality, thermal comfort, water quality, acoustic performance, safety of entering buildings, quality of external landscape, and sanitary design choices .
- Energy: Committed to evaluating the energy efficiency of buildings and their components, energy consumption monitoring systems, and the evaluation of technology options with low emissions from climate change.
- Transportation: Committed to assessing the sustainability of design choices aimed at improving the accessibility of the public transportation system. Due to the existence of the main services in the area near the building, the activities of residents are restricted and the use of lower transportation methods is encouraged. Compared with the traditional environmental impact, encourage remote office activities (for residential buildings).
- Water: Committed to assessing the sustainability of water consumption and the efficiency of the installed water equipment, consumption, loss and monitoring system for prevention.
- Materials: Committed to assessing the sustainability of design choices, aiming to reduce the impact of the entire life cycle of the building on the environment, encourage the responsible procurement of raw materials, and maximize the service life of all building elements.
- Waste: Design options designed to evaluate the sustainability of waste management in construction and operations, as well as design choices aimed at maximizing the use of recycled materials and minimizing the number of interior finishes replaced by end users, only for aesthetic reasons.

- Land use and ecology: Committed to assessing the sustainability of project site selection, the analysis of the ecological value of the site, and the subsequent actions to protect and increase ecological value, and strategies to increase biodiversity.
- Pollution: Committed to assessing the sustainability of design choices aimed at minimizing surface erosion caused by refrigerants on the environment, nitrogen oxide emissions, rain, light, and noise pollution.
- Design innovation allows you to earn up to 10 points when the performance exceeds the requirements of certain BREEAM cards or when you follow the design choices considered by the BRE global organization to be innovative.

2.5.5 LEED

The LEED standard (Leadership in Energy and Environmental Design Standards) is a certification program designed by the United States Green Building Council (USGBC; established in 1993) in 1994 to encourage sustainable design practices through performance measurement tools and standards And development. It is "a voluntary, consensus-based, market-driven building rating system based on existing mature technologies." LEED certification applies to any type of building, and it promotes a sustainability-oriented approach through, for example, energy/water conservation, carbon dioxide reduction, responsible use and selection of materials and resources, soil selection, and ecological quality. Internal. Similarly, for BREEAM, the system allocates credits based on the requirements that are met, and the total reflects the four levels of certification: certification, silver, gold, and platinum:

1. Certified: 40–49 points.
2. Silver: 50–59 points.
3. Gold: 60–79 points.
4. Platinum: 80+ points.

2.5.6 KPIs LEED:

- Sustainable site: (1 prerequisite, 8 credits-maximum 26 points): The environmental factors related to the site where the building will be built and its relationship with the environment are resolved.
- Water efficiency: (1 prerequisite, 3 credits-maximum 10 points): Consider environmental issues related to the use, management and disposal of water in buildings by monitoring the efficiency of water flow and promoting the reduction of water consumption and reuse. rainwater.
- Energy and atmosphere: (3 prerequisites, 6 credits-maximum 35 points): Promote the improvement of building energy performance, the use of renewable or alternative energy, and the control of building energy performance.

- Materials and resources: (1 prerequisite, 7 credits-maximum 14 points): Environmental issues related to material selection, reduction of the use of original materials, waste treatment and reduction of the environmental impact of transportation are taken into consideration.
- Indoor air quality: (2 prerequisites, 8 credits-maximum 15 points): Consider issues related to indoor environmental quality, including health, safety and comfort, energy consumption, effectiveness of ventilation, and air pollution control.
- Design innovation: (2 credits-maximum 6 points): Identifies the design aspects of the characteristics of innovation and application of sustainable practices in building construction.
- Regional Priority: (1 credit-maximum 4 points): The goal is to encourage the design team to focus on the completely unique and unique environmental characteristics of the project location.

3. LEED for Educational Segment[8]

The Green School strives to succeed on three pillars:

1. Reduce environmental impact and costs: Green schools reduce their environmental impact by reducing energy and water use, reducing fossil fuels used in transportation, reducing waste entering landfills, and protecting natural habitats.
2. Improving the health and performance of residents: Green schools protect the health of students and teachers by ensuring a clean and healthy indoor environment in the school and providing programs and services for good nutrition and sports activities.
3. Improve sustainability: Green schools teach students about sustainability and the environment, and provide them with tools to solve the global challenges we face now and in the future. Green schools support sustainability literacy through curricula and teaching practices that are interdisciplinary, place-based, and rooted in the real world.

3.1 Benefits for teacher and students[9]

The green school building creates an environment that makes students and teachers more comfortable, less prone to illness, and more focused on teaching and learning. The quality of school facilities is often overlooked as the main factor affecting students' academic performance. However, school buildings are not just places of learning-they can also help or hinder the learning process:

- Exposure to toxins: Known toxins have no place in schools, where contact with young children can cause serious consequences. Recently, lead and other heavy metal pollution in drinking water has attracted attention, and several states have passed laws requiring schools to test their drinking water sources. In addition, many chemicals found in pesticides and cleaning products are not suitable for inhalation or skin contact, and are especially harmful to children. Green schools are those schools that take measures to reduce the risks of students and teachers, such as the use of green cleaning, integrated pest management, and green procurement. The Green Class Professional Certificate Program has more information about these school programs.
- Indoor air quality: Studies have found that there is a relationship between lower ventilation rates and increased absentee time due to respiratory infections, increased incidence of sick building syndrome, and increased school nurses visiting doctors due to respiratory symptoms. In addition, improving the environmental air quality can promote the well-being of teachers. In a survey of 500 teachers in New York State, more than 10% of teachers reported that they were caused by headaches, drowsiness, eye and throat inflammation, congestion, and other symptoms caused by dust, moisture problems, and other irritants. The effective teaching ability has been negatively affected.

[8] Source: The Center for Green School, https://www.centerforgreenschools.org/green-schools
[9] Source: The Center for Green School, https://www.centerforgreenschools.org/green-schools

By improving indoor air quality, green schools can improve the health of students, faculty, and staff, thereby potentially reducing sick leave. In addition to the positive impact of keeping students and teachers in school, indoor air quality also has a direct impact on student performance. In one study, students in schools that were unable to achieve the lowest ventilation rate were more likely to perform poorly on math exams. Researchers found that when the outdoor air supply rate (more fresh air) increased, the task speed of students aged 10-12 increased significantly

- Acoustics: Optimizing classroom acoustics so that children can hear is the basis of learning. Many studies have confirmed the importance of low background noise levels and better speech intelligibility in maintaining acoustic conditions suitable for student learning.

  Studies have shown that students' memory, attention and other cognitive processes develop slowly and are sensitive to chronic noise exposure. Since 2014, more than 20 studies have shown that there is a negative correlation between environmental noise exposure and children's learning outcomes and cognitive performance.

  The green school provides an environment that reduces interference and encourages participation. It combines high-quality sound-absorbing ceilings, lined pipe systems and heating and cooling systems with appropriately placed vents to reduce background noise in the classroom.
- Thermal comfort: A comfortable indoor temperature can increase work efficiency and make students more alert. In a 2016 study of the high-stakes test scores of 75,000 students in New York City, researchers found that for every 1 degree Fahrenheit increase in temperature, test scores fell by 0.2%. Although it looks small, the result means that students are 12.3% more likely to fail the exam on 90-degree days than on 75-degree days. Another study found that maintaining adequate ventilation and thermal comfort can increase test scores from average to "recommended performance."
- Daylight: Studies have shown that when natural light is lacking, children's melatonin cycle is disturbed, which may affect their alertness during school. A 2013 study analyzed data from more than 21,000 students and found a significant positive correlation between classroom lighting and better test scores and student performance. Daylight also plays a vital role in the behavioral development of young students. A 2014 study evaluating daylight in preschools found that there is a significant relationship between students' social behaviors and classroom daylight conditions. The study also found a close relationship between the improvement of cognitive skills and the daylight conditions in the classroom. Skylights and large windows allow daylight to enter the green school, thereby improving students' health and academic performance.
- Get close to nature: Extensive research has shown that there are many benefits to ensuring that young people get close to nature. The Children and Nature Network has compiled a research library to explore this in-depth information about connections to behavior, academics, health, community, and other positive outcomes. Green buildings are those buildings that provide green spaces and outdoor views for people indoors. In addition, a green campus, nature-based games and meaningful nature experiences are the foundation of a green school.

It cannot be ignored that green buildings can be used as teaching tools and provide real examples of concepts learned in the classroom. Teachers of green schools can use their buildings as the basis for project-based experiential learning. Green schools provide a clear opportunity to connect students with environmental and science, technology, engineering, and mathematics (STEM) education courses, and they can be used as tools for interactive courses across all disciplines.

For example, students majoring in mathematics can track and map utility cost savings, students majoring in science can analyze and compare the differences between environmentally friendly cleaning products and traditional cleaning products, and students majoring in humanities can discuss the impact of the community on their environment. Every student can benefit from the opportunity of hands-on learning, which demonstrates the interconnection between people, the built environment, and natural systems

3.2 Benefits in terms of budget[10]

Energy efficiency and utility cost savings: The EnergySmart School of the Department of Energy reported that K-12 schools spend more than US$8 billion on energy each year, making energy the second largest school operating expenditure after personnel costs. There are many sources of utility costs saved by green schools, including energy-efficient heating and air-conditioning systems, energy-efficient lighting and occupancy sensors, daylighting strategies, water-saving devices, and lower operating and maintenance costs. If all schools are renovated or built in accordance with basic energy efficiency principles, the total energy saved in the next 10 years can easily reach 20 billion U.S. dollars

The construction cost of a green school can be equal to or lower than the construction cost of the district K-12 and operate within the budget of the existing facilities. There are examples of schools all over the country obtaining LEED certification within the area average cost, even for early adopters.

According to an interview with the district's sustainability manager in 2016, the last nine schools built in Virginia Beach City's schools have passed all levels of LEED certification, and the cost in the area is 8% to 34% lower than the district cost. River Crest Elementary School in Wisconsin is a LEED gold school, and its construction cost is 29% lower than the regional construction cost. Fossil Ridge High School in Colorado is the third LEED-certified public high school in the country. At a construction cost of $128 per square foot, it is one of the cheapest schools in the area built in 2004.

Evidence from literature searches shows that high-performance or green buildings can significantly reduce energy use and water consumption.

The cost savings associated with reducing energy and water use will vary by geographic area, climate zone, and building type. 13 of the 25 studies evaluated by the committee focused on measuring the actual energy

[10] Source: The Center for Green School, https://www.centerforgreenschools.org/green-schools

use of buildings based on utility bills. All 13 companies have found that high-performance or green buildings (that is, on a group of buildings) use 5% to 30% less energy on the site than similar traditional buildings.

Six studies that conducted some assessments of water use found that high-performance or green buildings consume on average 8% to 11% less water than traditional buildings.

School districts that construct and operate green buildings can see additional cost benefits in addition to energy and water conservation. The maintenance costs of the 22 buildings examined in the US Department of Energy's Pacific Northwest National Laboratory study were nearly 20% lower than typical commercial buildings.

In addition, the improvement of air quality in green schools has been shown to be related to student absenteeism. Even a small reduction in absenteeism can greatly improve the school budget, because most of the school's operating budget is directly dependent on the average daily attendance rate (ADA). EPA also reported that active indoor air quality management is a feature of green school maintenance and can reduce remedial costs and potential litigation faced by school districts.

3.3 Benefits for Communities[11]

- The school is the center of community life: school buildings can serve as valuable community infrastructure before and after the school bell rings every day. The facility can often be used to host community meetings and events, weekend markets, and disaster relief shelters. Therefore, green schools not only affect the school community, but also help educate neighbors about sustainable living and develop the social infrastructure of the community.

- Green schools improve community behavior: In a survey of occupants of green school buildings, 71% of respondents "see evidence of improved student behavior, significantly reducing violence, vandalism, and bullying."

Independent research on positive behaviors of children in renovated green campuses in low-income urban communities confirmed this, finding that injuries were reduced, a sense of security increased, bullying and gang activities were reduced, and physical activity and social interaction remained positive until 32 months after renovation. In another survey of green school leaders, 99% of the principals interviewed said that student participation has increased, and 77% of the respondents said that community participation has increased.

[11] Source: The Center for Green School, https://www.centerforgreenschools.org/green-schools

- Green schools strengthen learning by cultivating local experts: building and operating greener schools can improve the professional knowledge level of the community by providing new business and training opportunities. Local builders and facility managers can help students track the energy savings of using solar panels.

  You can invite landscape architects and biology students to conduct research on native plants, soils, and wildlife habitats. Students become ambassadors of social and environmental responsibility, educating their families, friends and communities on the value of sustainable lifestyles.

- School investment increases property value: Research shows that investing in public school infrastructure can increase property value, exceed borrowing amounts, increase enrollment, and help rebuild confidence in previously troubled areas or schools. According to the National Association of Realtors, the quality of the school district is the decisive factor for 26% of all home buyers and 35% of home buyers aged 37-51. In a 2005 survey, Turner Construction found that 87% of school administrators who invested in green buildings reported that improving the image of the community is one of the biggest benefits of green schools. Well-respected schools can increase property value, encourage business investment and create employment opportunities, and become the cornerstone of vibrant communities.

3.4 Benefits for the Planet[12]

Buildings are one of the largest consumers of natural resources, using more than 70% of electricity and contributing nearly 40% of US carbon dioxide emissions. According to data from the Global Building and Construction Alliance, they account for more than a quarter of all greenhouse gas emissions, more than the contribution of industry or transportation.

The 130,000 schools in the United States serve nearly one-sixth of the nation's population every day. The K-12 public school district has a built-up area of more than 7.5 billion square feet, equivalent to nearly half of all commercial office space in the United States, and an estimated living area of 2 million acres.

The impact of implementing environmentally sensitive practices in these facilities may result in a substantial reduction in the use of natural resources. Studies have shown that just improving the energy performance of school buildings can reduce carbon dioxide emissions by as much as 30 million tons, which is equivalent to reducing 6 million cars on the road throughout the year.

The LEED building rating system aims to solve the negative impact of the design, construction and operation of buildings around the world on the environment, and ultimately promote the construction industry to have a positive and renewable impact on the environment.

[12] Source: The Center for Green School, https://www.centerforgreenschools.org/green-schools

The rating system rewards practices such as reducing energy and water use, implementing recycling during construction and subsequent building operations, maintaining local and adaptive landscapes, and improving resilience to climate change. LEED also encourages the purchase of sustainably produced, recycled and recyclable materials and products.

CHAPTER 3: CASE STUDY – ROME INTERNATIONAL SCHOOL

1. OVERVIEW

Rome International School (RIS) is a private school founded in Rome in 1988 which has been providing international education in English since 1997. The school obtained, in 2009, the IB Diploma authorization (IB Primary Years Programme since 2012) and is part of the Association of IB World Schools in Italy and the LUISS network. It is also a Cambridge Assessment Center.

Figure 15: The Rome International School

The school belongs to LUISS Guido Carli until 2018; then, on February 12, 2018, LUISS transfers the business unit relating to the school to RIS S.r.l, a company established in November 2017 with shares entirely held by Pola S.r.l. (100% LUISS).
On 10 May 2018, Pola S.r.l. sells RIS S.r.l to a company, to date, which is part of the international group NACE Schools (later renamed Globaleducate). In November 2019, the NACE Group change its name in Globaleducate; it's market leader in the education sector, with more than 50 international school in 10 countries worldwide and online programmes for 25.000 students all over the world.
In Italy, Globaleducate is present with schools from ICS Milan, RIS, Southlands International School and Canadian School of Florence.

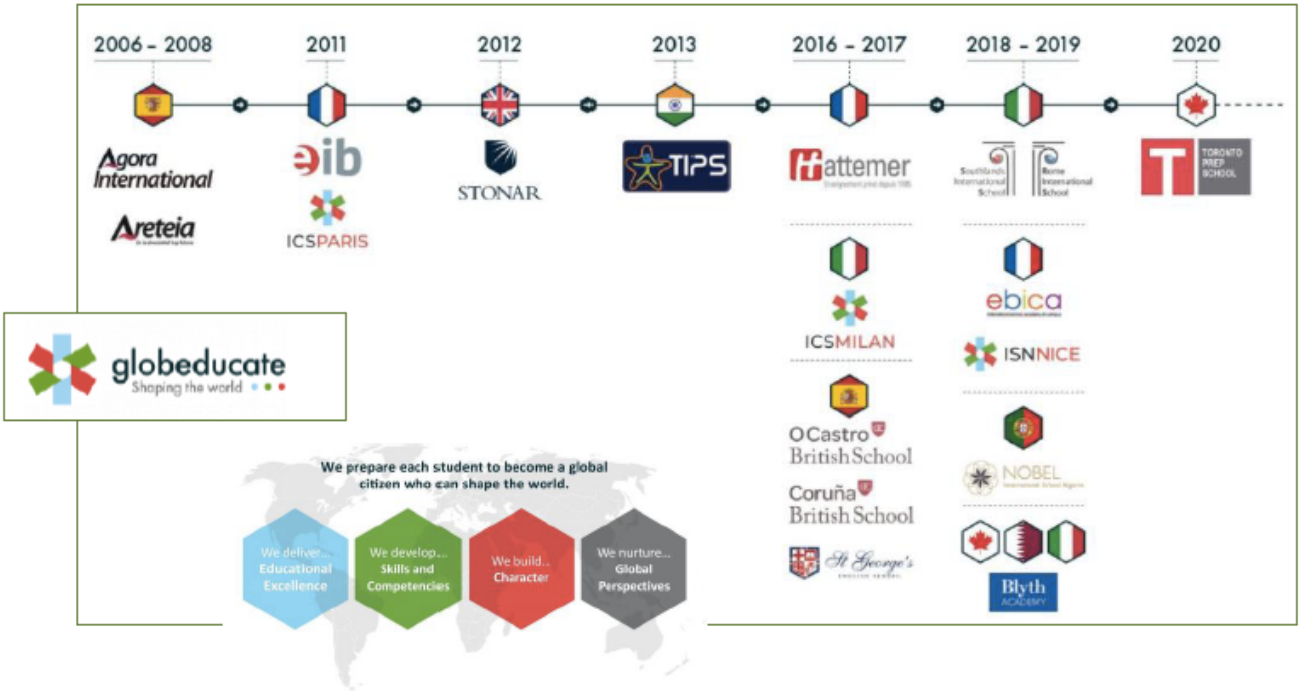


Figure 16: Globaleducate Group Structure

The acquisition by NACE has allowed the birth of the most important international education center in Rome - as well as one of the main in Italy - with 850 students aged 2 to 18 from more than 60 countries. This operation was accompanied by the signing of an institutional agreement with the LUISS Guido Carli University for a collaboration project in the field of training, a unique agreement of its kind.
Nace Schools is one of the main international operators that runs private schools in several European countries and in India. The international group allows the school to offer its teachers and students various opportunities, including:

- Professional development programs for teachers and networking,
- Solid international standards for on-going control and monitoring of the quality of training,
- Extra-curricular programs,
- The possibility of participating in the Nace Olympics, participating in the United Nations, competitions and festivals for artistic materials,
- International exchanges with schools UK

The private education sector could be segmented by price range, each with distinctive features. In particular, RIS is classifiable in the "super premium" category, which is:

- International curriculum IB
- Student Rate equal 8 (there are circa 440 students and circa 52 teachers)
- Highly qualified teacher that typically are native English speakers
- High quality of the infrastructure, with dedicated facilities for sports, music, arts and other non-academic activities
- A holistic development, where students are prepared for top national and international HE institutes.

RIS, through its educational programs and extra-curricular activities, promotes the development of a cohesive community of students / parents. Supports and promotes the positive and active commitment of teachers and parents to foster the educational progress of its students. In fact, it have particular attention to:

- Economic Inclusion: thanks to the Parent Teacher Association, promotes important charitable activities to support less well-off children / students. The initiatives promoted have allowed the RIS to raise funds for national non-profit organizations and international. In addition, the school has a scholarship program («Scholarship Fund Program») for deserving Italian and foreign students with low family income: 4 scholarships (2 for elementary students and 2 for middle / high school).

- Protection of the Environment: In 2016 RIS obtained the Eco-school certification from the Foundation for Environmental Education (FEE). The Eco-Schools program is the most important international program dedicated to environmental education in schools. The school promotes the education of students on eco-sustainability issues.

- Cultural and Social Inclusion: the school organizes dedicated events using the school's spaces, international exchanges, excursions and events for students, even abroad. It also organizes social events that are also accessible to external parties, often hosted in the outdoor areas and in the auditorium.

1.1 CATCHMENT AREA & INVESTMENT SUMMARY

The Catchment area of Rome International School consider the zone of the city that are distant at least 40/50 min by car from school. The 80% of RIS students coming from this catchment area.
The characteristics are:

- Area of the city with households with the highest per capita income
- One of the areas of the city with the highest prices per square meter (€4.300 per square meter, 25% above the average of the rest of the city)
- One of the most densely populated areas of the city with 2.200 hb/sqm (vs 2.000 hb/sqm of the rest of the city) and with high population growth rates (+0,2% in the period 2015-2016)
- In the catchment area there are, at least, 21 competitors including 6 schools with characteristics and rates similar to the RIS

Next, we have an overview of the main competitor near the RIS:

NOME SCUOLA	St George's (La Storta)	St George's (Centro)	American Overseas School in Rome	Marymount International School	The New School of Rome	St Philip School	RIS
# STUD.	790 c.a.	200 c.a.	670 c.a.	710 c.a.	245 c.a.	200 c.a.	470
ASILO	NA	NA	NA	NA	NA	NA	NA
MATERNA (# totale)	60	50	>70	100	35	90	70
ELEMENTARI (# totale)	230	150	>200	250	100	110	180
SECONDARY (# totale)	500	0	>400	360	110	TBD (apertura 2020)	220
CV	IB, Cambridge Accreditation	IB, Cambridge Accreditation	IB	IB	IB, Cambridge Accreditation	IB, Cambridge Accreditation	IB, Cambridge Accreditation
INFRASTRUCTURE: • Outdoor garden • Sport facilities • Labs scienze/arte • Campus nuovo	 • Si • Si • Si • Si	 • Si • Si • No • Si	 • Si • Si • Si • No	 • Si • Si • Si • Si	 • Si • Si • Si • No	 • No • Si • No • No	 • Si • Si • Si • Si
FEES • Y1 • Y13	 • 14k€ • 21k€	 • 14k€ • 21k€	 • 17k€ • 26k€	 • 17k€ • 23k€	 • 12k€ • 18k€	 • 10k€ • Y6: 11k€	 • 15k€ • 23k€
DISTANZA DA RIS	11,5 Km	7,4 Km	5,3 Km	1,6 Km	2,9 Km	16,3 Km	

Now we focus on the **Investment Rationale**:

INVESTMENT SUMMARY	
Indirizzo	Rome, Via Pecori Giraldi 137
Venditore	Famiglia privata - tramite veicolo societario
Anno di Costruzione	Anni '70/ integralmente ristrutturato nel 2014
Tipologia acquisto	Acquisto immobiliare
Destinazione d'uso corrente	Scuola privata
Tenant	Rome International School
Prezzo potenziale	43.800.000
Annual Rent	2.168.000
Gross Yield	4,9%

First, we look at **Location**: The property is located near Via della Camilluccia (Montemario area), one of the most sought after locations for prestigious residential uses. The area is characterized by the presence of several embassies and prestigious villas, also not far from the Foro Italico and Ponte Milvio, which are the meeting places of the city. The area can be reached mainly by road vehicles, as it is not reached by the subway.
The building benefits from an excellent location and privacy, which are well integrated with the established use function, also having access from a dedicated internal road.
Then, we look at the **Asset**: the building is on four floors, connected by stairs and elevators. The floor plan and the structural elements are well integrated and functional for the tenant's use. The asset is equipped with a basement in which facilities are located to support school use.
Finally, we look for the **Tenant**: RIS S.r.l. is an international school belonging to the Globeducate Group (50+ schools in the world), which occupies the asset under a new lease agreement signed in 2018.

Strategy: Long-term asset holding, benefiting from stable returns generated by a long-term rental fee with one of the leading private school operators nationwide, guaranteeing stable and secure returns and cash-on-cash. Furthermore, a low availability of space for use by schools, qualitatively in line with the present asset, for tenants and investors, should improve liquidity and push up / stabilize market rents in the future.

Return from the investment: Long-term stable returns with the possibility of additional leverage. Furthermore, thanks to the full indexation of the rent, these yields are protected from inflation.

2. KEY FINANCIALS DATA ANALYSIS

The income statement figures of 31 August 2020 are affected by the confluence of the balances of the merger transaction and the adoption of the IFRS 16 accounting standard.

	2015	2016	2017	2018	2019	2020
Revenues	7,147	7,725	8,312	8,050	8,193	8,310
Other revenues	324	388	486	209	69	70
Revenues	**7,471**	**8,113**	**8,799**	**8,258**	**8,262**	**8,380**
% Rev YoY		*9%*	*8%*	*-6%*	*0%*	*1%*
Personnel	-3,617	-3,409	-3,654	-3,162	-3,717	-3,711
Raw materials	*-79*	*-70*	*-81*	*-96*	*-77*	*-66*
Services	*-1,617*	*-1,856*	*-1,962*	*-2,086*	*-2,020*	*-1,285*
Leases and rent	*-2,001*	*-2,054*	*-2,149*	*-2,151*	*-2,030*	*-116*
Operating costs	-3,697	-3,980	-4,192	-4,333	-4,128	-1,467
Total costs	**-7,314**	**-7,389**	**-7,846**	**-7,495**	**-7,845**	**-5,178**
Intercompany costs					-138	
Personnel (not incl. budget)					-231	
Adjustments (total costs non recurring)					-369	
EBITDA Adj.	**157**	**724**	**953**	**763**	**787**	**1,020**
	2%	*9%*	*11%*	*9%*	*10%*	*12%*
Rent effettivo Infra RE	*- 2,001*	*- 2,054*	*- 2,149*	*- 2,189*	*- 2,030*	*- 2,162*
EBITDA IFRS 16 (e.g. EBITDAR)	**2,158**	**2,772**	**3,082**	**2,931**	**2,817**	**3,202**
% of Rev.	*29%*	*34%*	*35%*	*35%*	*34%*	*38%*

Figure 17: Income Statement - Historical Data

The IFRS 16 is applied to all the contract that contain the right to use for a certain period of time (which must be at least 12 months) in change of a certain amount. For the lessee, the distinction between financial leasing and operating leasing is no longer present. RIS applied IFRS 16 to the contract for the use of the real estate infrastructure in Via Pecori Giraldi, Rome.
The application of IFRS 16 principle, provide:

- An initial recognition and assessment of the right to use the asset and financial liabilities corresponding to the current value of future rents (registration of the asset and, in return, registration of a financial debt),
- A subsequent evaluation with asset depreciation and discounting of liabilities at the discount rate defined at the start of the leasing contract,
- a separate entry in the income statement of the interest and amortization

Looking at revenues, the increase is recorded in the period, the 2015/2016 academic year and the 2019/2020 academic year (10% +), is mainly due to the growth in volumes with a student population that has gone from approx. 400 students to over 450, as well as a physiological increase in tuition. Furthermore, the talks with the management show a growth in the more senior classes with a consequent positive effect in terms of the offer mix. despite the impacts. The analysis of the financial statements shows that the management has contained the effects of the last year related to Covid.

Looking at operative costs, The operating costs of the school, mainly related to the rental costs of the real estate infrastructure and staff, have remained substantially stable, or slightly decreased, over the last 3 years.

The average incidence of the rent in the last 3 years was 24 26 c a while the incidence of the cost of employees was on average 44 c a. Personnel costs have grown over time as a result of the increase in school teachers 82 total employees of which 63 teachers in 2019 vs 78 in 2018 in line with student growth.
The change in operating costs from the financial statements between 2019 and 2020 is mainly influenced by the voluntary adoption of IFRS 16 (eg 2020 first year of the IFRS) which led to the recognition of "rights of use for leased assets" under assets and to the liabilities of the SP for € 20,6 M (lease relating to the use of the real estate infrastructure) and, consequently:
1. the decrease in operating costs relating to the rent and
2. the increase in depreciation

Finally, analysing the Marginality, the EBITDA of the last 3 years has stood, in terms of incidence on revenues, between 9% and 12% with a gradual improvement that has led to exceeding the threshold of €1M in the academic year 2019 2020. Even more relevant from an investor's point of view is the improvement in EBITDAR which went from 29% in 2015 to 38% in 2020. The increase in Ebitda between 2019 and 2020 is mainly linked to the application of IFRS 16.

Now, we focus on the balance sheet:

€k	Ago 2019	Ago 2020
Immobilizzazioni immateriali	*4864*	*4863*
Immobilizzazioni materiali	*1,160*	*1,166*
Immobilizzazioni finanziarie (inlc. Diritti uso per beni in leasing)	*1,028*	*21,633*
Totale Immobilizzazioni	**7,072**	**27,661**
Crediti (principalmente vs clienti)	*4,458*	*4,346*
Attività finanziarie	*2,595*	*877*
Disponibilità liquide	*2,018*	*1,855*
Attivo Circolante	**9,071**	**7,077**
Totale Attivo	**16,143**	**34,739**
Capitale sociale	*100*	*100*
Riserva da sovraprezzo (incl. altre riserve)	*5917*	*2,045*
Utile/perdita a nuovo	*35*	*138*
Utile/perdita esercizio	*109*	*235*
Totale Patrimonio Netto	**6161**	**2518**
Passività per beni in leasing a LT	**0**	**18,974**
Altri debiti non correnti	**0**	**1500**
Fondo Rischi & Oneri	**83**	**159**
TFR	**1125**	**946**
Debiti vs fornitori (<1Y)	*575*	*1333*
Debiti vs controllanti (<1Y)	*604*	*0*
Quote a Breve per passività finanziarie in leasing	*0*	*1748*
Debiti tributari (<1Y)	*120*	*169*
Altri debiti (<1Y)	*277*	*277*
Totale Debiti	**1776**	**3527**
Ratei e Risconti	**6998**	**7114**
Totale Passivo	**16,143**	**34,739**

Figure 18: Balance Sheet Year 2019 and 2020, RIS Balance

Looking at the Asset side, between 2020 and 2019, it's important to reduce to zero the impact coming from the adoption of IFRS 16 principle. Net of this, as at 31/08/2020, the assets are substantially stable and mainly composed of:

- The goodwill recognized in the financial statements deemed by management to be fully recoverable according to the impairment test for c.a. € 4.9M
- Trade receivables for € 4.3M (relating to the following academic year)
- Cash for € 1.9M
- Fixed assets for c.a. € 2.4M

Looking at Liabilities side, we could say that RIS does not present, for 2019, external financial debt while in 2020 it has a financial debt to third parties of € 1.5M ("non-current payables"), inherited from the reverse merger with the parent company.
In 2020, long term liabilities are equal to €19M and short term liabilities equals €1.7M (these are related to the adoption of IFRS 16 principle), so in order to compare the data from previous year, we need to not consider these short term liabilities.

Now we move our focus on the Performance Indicators. These indicators are useful in order to value the economic and financial situation of a company, looking at its profitability.
The company presents:

- Good performance indicators, with an improvement in ROE and ROS between 2019 and 2020
- Limited exposure to financial risk
- A low incidence of liquidity risk: the financial needs deriving from current debts are covered by operational management, or by the cash flows deriving from typical management (student fees)
- An acceptable exposure to credit risk and exclusively referring to trade receivables due from customers and related to the terms of payment contractually defined with them.

ROI	2019 €k	2020 €k
Risultato operativo (A)	185,4	963
Totale Impieghi (B)	6044,5	26631*
ROI (A/B)	3%	4%

ROE	2019 €k	2020 €k
Risultato d'Esercizio (A)	108,8	235
Capitale Proprio (B)	6160,2	2518
ROE (A/B)	2%	9%

Capitale Circolante Netto	2019 €k	2020€k
Attività Correnti	4383	4287
Passività Correnti	(7919)	(8874)
CCN	(3536)	(4588)

ROS	2019 €k	2020 €k
Risultato operativo (A)	185,4	963
Ricavi Vendita (B)	8262,3	8380
ROS(A/B)	2%	11%

- Return on Investment is the *"operating profitability which is the measure of the return on the capital invested in the company by way of debt or risk. It is given by the ratio between operating profit and invested capital"*[13].
  It is a measure of the profitability of invested capital, and therefore the ability to obtain a return on investment. Therefore, it not only expresses the ability to pay risk capital (as happens when ROE is used), but also expresses the ability to pay risk capital and debt capital.

[13] Borsa Italiana: Glossario Finanziaro – Return on Investments

The cost of capital measurement that represents the ROI benchmark is given by the weighted average cost of capital (WACC). Given that the overall risk of total invested capital is lower than that of debt capital alone, the ROI value of a particular company is usually lower than the ROE value.
Also for ROI, similar to the findings of ROE, in the medium and long term, the value of each company tends to the average market value (8% to 12%).
The rate of return on investment is derived from the ratio of operating results to invested capital. Operating results are derived from the difference between sales revenue and costs from core business (industrial, commercial and administrative costs). The investment capital is equal to the total net assets. According to the double entry algorithm, it is consistent with the following sum: equity + liabilities.

- Return on Equity is the *"Measurement of a company's accounting performance. It is given by the ratio between the net income and the net assets of a company resulting from the financial statements. It is also known as Return on Equity (ROE)"*[14].
  It measures the return on equity, that is, the return on capital invested by shareholders in the company. Therefore, it shows the ability to return risk capital. Therefore, ROE must be at least sufficient to cover the cost of risk capital. Therefore, in order for the company to generate abnormal profits, the value of ROE must be higher than the cost of equity.
  It can be seen from experience that due to the power of market competition, the ROE value of each company will generally converge to the average market value within 5-10 years. The long-term average market value of ROE is between 10% and 14%. In fact, an above-average ROE will attract competing companies (this determines the reduction in ROE of companies whose value is above the average level), and capital will be transferred from those companies with a below-average ROE value for more profitable investments.
  ROE is used to make historical comparisons of the profitability of company equity in different years. For the same period, the ROE of a company is compared with the ROE of other companies in the industry.

- Net Working Capital *"represents the difference between current assets and current liabilities represented in the balance sheet"*[15].
  Net working capital (NWC) is the difference between current assets and current liabilities in the balance sheet. Current assets include: trade receivables, ending inventory, cash, accrued income and prepaid expenses. Current liabilities include: trade payables, operating payables, accrued liabilities and deferred income.
  NWC measures the management's ability to manage the company's current business activities. For example, financial analysts usually associate negative signals with an increase in the value of final inventory (the company's products are difficult to sell, obsolete products in inventory, and forecasts of future sales decline); negative signals are usually also related to an increase in the value of trade receivables (A longer payment period needs to be granted to sell the company's products).
  The change in the value of NWC (between the balance sheet value of the reference year and the balance sheet value of the previous year) is used as a measure of EBIT adjustment in the free cash flow calculation used in the discounted cash flow method.

- Return on Sales *"is the ratio between operating income (Ebitda) and value of sales (turnover)"*[16].
  Sales profit margin is a widely used indicator in the financial analysis of industrial and commercial enterprises to measure the profit margin generated by each unit of invoice value.
  The return on sales (ROS) measures the efficiency of a company's operations and allows comparisons between the same company and companies operating in the same industry over a period of time. A high index is a sign of good company operations and business health.
  Basically, ROS represents the percentage of turnover converted into profit relative to the fiscal year.

Looking at the lease contract, it provides important elements of protection for property, in particular:

[14] Borsa Italiana: Glossario Finanziaro – Return on Equity
[15] Borsa Italiana: Glossario Finanziario – Net Working Capital
[16] Borsa Italiana: Glossario Finanziario – Return on Sales

- A diversified system of guarantee, represented by:
  - A security deposit of € 1M
  - A bank guarantee of € 3M
  - A corporate guarantee, for import that exceed the bank guarantee, equal to € 2M
- Prepayment of the fee, protection from early withdrawal through the application of specific penalties
- Complete protection from inflation risk by indexing to 100% ISTAT
- Right of approval on the sale of shares by NACE Group

ARGOMENTO	**PRINCIPALI TERMINI E CONDIZIONI LOCAZIONE**
Oggetto:	Complesso immobiliare con annesso terreno circostante ad uso scolastico per lo svolgimento di attività didattica e di formazione sito in Via Guglielmo Pecori Giraldi 137 a Roma, costituito da: ▪ Un unico corpo di fabbrica (5 livelli), ▪ Aree esterne (aree verdi, parcheggi e strada privata di accesso) Contratto di locazione originariamente sottoscritto (24/11/2012) con Pola S.r.l, conferito in RIS S.r.l il 02/02/2018.
Termini temporali:	Durata: 7 (dal 01/06/2018) + 6 anni (fino 31/05/2031)
Recesso anticipato:	Il Conduttore non ha facoltà di recesso convenzionale dal Contratto. Il recesso è consentito solo a condizione di pagamento di penali: ▪ €5M se esercitato entro maggio 2020, ▪ €4M se esercitato entro maggio 2023, ▪ €3M se esercitato entro maggio 2024, ▪ €908k se esercitato entro maggio 2025, ▪ €778k se esercitato entro maggio 2026, ▪ €648k se esercitato entro maggio 2027, ▪ €519k se esercitato entro maggio 2028, ▪ €389k se esercitato entro maggio 2029, ▪ €259k se esercitato entro maggio 2030, e ▪ €130k se esercitato entro maggio 2031.
Canone:	Componente fissa di €2,168M/anno (a decorrere dal 01/06/2018), con rate trimestrali anticipate pari ad un quarto dell'importo tale annuo. con previsione di scalettatura come di seguito (*) - 1° anno, pari a €2,018M
Aggiornamento del canone:	In misura pari al [100%] dell'indice ISTAT (a partire dal 01/06/2019)
Addizioni e migliorie:	Possibili solo con il preventivo consenso scritto del locatore.
Manutenzione dell'Asset:	Manutenzione ordinaria a carico Conduttore
Garanzia:	▪ **Deposito cauzionale** di €1M, non imputabile in conto pigioni, ▪ **Garanzia bancaria** autonoma a prima richiesta pari ad €3M (Unicredit) ▪ **Garanzia Corporate** rilasciata dalla LUISS Guido Carli il 10/05/2018, valida fino al 31/05/2024 pari ad €2M, a copertura di eventuali inadempimenti del *tenant* per importi superiori alla garanzia bancaria (eccedenti €3M).

3. COVID-19 IMPACT ON ROME INTERNATIONAL SCHOOL

During the lockdown period, as highlighted by the conductor's management team, RIS ensured distance learning for all students using the most advanced tools available. The size and quality of the real estate infrastructure in which the school takes place, has allowed the RIS to reopen the school at the beginning of September, resuming teaching in person and ensuring the necessary distancing for students.
RIS managed, even in 2020 (post Covid), to maintain a retention rate of 100% on enrolled students. For now, Covid has only slowed down the rate of new enrollments linked to foreign students.
The management of the effects of Covid 19 had limited impacts for the school but, in order to ensure the solidity of the company and the sustainability of the fee even in the presence of pandemic impacts, RIS srl requested, on 27/07/2020, to the lessor a temporary rescheduling of the rents in order to manage the impacts of the Covid 19 crisis. The tenant and the lessor have entered into an agreement which provides for:

- A one-time discount of € 300k as a reimbursement of the rent for the period 01/09/2019 31/08/2020,
- A rescheduling of the payment times of the rent for the school year between 09/01/2021 and 08/31/2022

This request, as also indicated in the text of the agreement between the parties, does not indicate risks of worsening the creditworthiness of the tenant nor are, at the moment, configurable, significant liquidity tensions for the tenant. The number of registrations for the year 2020-2021 shows a normalization of the context and the ability of RIS srl to guarantee distance learning services during and after the lockdown period are important elements that contribute to positively assess the tenant's strength.

CONCLUSIONS

In Italy, schools must not be left alone, because analysis shows that students and female students find that they spend far less than half of the theoretically planned days.

For example, in the previous school year, from September 2020 to the end of February 2021, Bari kindergarten children were able to personally participate in 48 of the planned 107 days, compared with the 112 days on the calendar for their Milanese peers in class. Middle school students in Naples went to school for 42 out of 97 days, while middle school students in Rome went to school for all 108 days. As for high school, boys and girls in Reggio Calabria were able to attend class in person for 35.5 days instead of the 97 days on the calendar, and their Florence peers went to school 75.1 days out of 106 days.

The analysis of some capitals highlights an Italy at different speeds: trends in contagion risks and different administrative choices have created differences between Italian cities.

The pandemic last year that forced students to suddenly interrupt classes three months before the end of the school year has also severely affected their ability to attend classes in 2020/21.

The school began to close in February 2020, and a pandemic was announced on March 11, prompting 91% of the world's students to leave the classroom in the middle of the school year.

It is estimated that without intervention measures, the equivalent of 0.6 years of school learning time will be lost, and the proportion of boys and girls below the minimum level will increase by 25%. For students from lower-educated families, these losses will be even greater; confirm the concerns related to the unfairness of the consequences of the pandemic.

Therefore, it is necessary to have a clear understanding of the situation in Italy in order to be able to intervene as soon as possible, reach the most difficult students, and develop a personalized teaching support plan, whether remotely or not, and the recovery of learning. Worldwide, in addition to the loss in learning, not going to school means greater risk of child labor, early marriage and other forms of abuse, and a greater risk of falling into a poverty cycle.[17]

This situation, plus all the issues that the public education sector has faced during the pandemic period, and also in the last years, lead to a situation where investment in private education seems the best solution; this is from a social point of view, thus giving students and their families the opportunity to take advantage of state-of-the-art services and infrastructures, in line with the needs of the modern world. From a Real Estate perspective, from the analysis carried out, we can say that the investment in a private school is profitable; However, the "tenant risk" must be taken into account, particularly when we refer to educational sector.

[17] Source: Save The Children, https://www.savethechildren.it/blog-notizie/un-anno-pandemia-le-conseguenze-sull-istruzione-italia-e-mondo, March 2021

The reliability of building tenants and contract strength are the first set of factors that must be evaluated when assessing the variability of rental yields.

Any loss of rent may result from the tenant's breach of contract, bankruptcy or litigation. In fact, these circumstances may result in delays in rent collection and the need to renegotiate the same temporarily vacant property.

All of these are particularly effective if the tenant of the real estate unit is a business. In this sense, it is certain that the target of investment is not only real estate, but also the clothing industry. The latter is aimed at the lease of tenants. It also seems very important. Many people emphasize that there is a direct relationship between economic growth in specific sectors and increased demand for dedicated space, which is understood as an increase in interest in the reference market.

In order to assess the ability of individual tenants to cope with the pros and cons. For the prior commitment of the property owner, it is necessary to analyze the external environment of its operation, and secondly, the relative conditions of solvency.

Regarding the first point, it seems necessary to verify the threats and opportunities in the sector; for example, these are related to the structure of the sector, the relative intensity of competition, and the relative degree of cyclicality.

It is also necessary to assess the specific stage of the life cycle of the department at the time of leasing; each stage, introduction, development, maturity or decline, actually involves significant changes in the average profitability of the business.

In particular, two different types of real estate risks can be associated with each stage:

- The risk that the company leaves the reference market and therefore abandons the leased assets;
- The risk of the company's financial pressure, and the consequent potential risk of non-payment of lease payments.

The analysis of the life cycle of the department makes it possible to obtain general information about the possible evolution of the environment in which the organization conducts its activities. However, it needs to be emphasized that each department may follow a development stage that is not completely consistent with the traditional model. In this sense, in order to assess the risk of asset lessees, it is appropriate to conduct detailed verification of the specific commodity factors of the activities held in the real estate unit. An accurate assessment of the risk level of tenants in real estate units also requires a specific analysis of the income and financial prospects of individual reference companies.

In the context of the review, another relevant variable for assessing the profile of potential tenants is their solvency level.

To this end, a careful analysis of the characteristics of potential tenants will highlight the main economic indicators of the company's activities and its reference market. From this perspective, the analysis of the main financial statement ratios is particularly useful. It distinguishes according to different reference ranges. It starts from the reclassification of economy, equity and financial status.

It can evaluate the company’s current solvency and understand it as liquidity. The latter’s ability to fulfill long-term commitments is understood as capital strength.

Therefore, the determination of the financial statement ratio and the determination of the company's cash flow can provide an initial indication of the possibility of bankruptcy. In addition, the degree of substitutability of conductors seems to be fundamental, because the greater substitutability of conductors helps reduce the level of investment risk.

The cases reviewed so far involve the presence of a single tenant in the reference asset. However, in most cases, a real estate unit is leased to multiple companies, creating potential segmentation, thereby reducing the overall risk level of the investment.

The impact of diversification on the level of leasing risk is a function of the correlation rate between different tenants and different businesses in the property. If there is a negative correlation between the guaranteed returns of a single tenant, the benefits of diversification will be high. On the other hand, if the tenants of the property operate in the same industry or similar market, the impact of diversification will be limited. Finally, the fully positive correlation between industries represents the maximum risk assumption: the overall lease risk is equal to the weighted average of the volatility of returns generated by each company.

Therefore, in order to correctly assess the overall leasing risk, it is necessary to determine the specific degree of volatility of each company's earnings according to the industry and solvency level, as well as the relative correlation coefficient regarding other businesses that exist in the building.

BIBLIOGRAPHY & SITOGRAPHY

- Alla Kudryashova, Atanas Genkov, Tianxiang Mo, Certification Schemes for Sustainable Buildings: Assessment of BREEAM, LEED and LBC from a Strategic Sustainable Development Perspective, Blekinge Institute of Technology Karlskrona, Sweden, 2015.
- Georg Inderst, Social Infrastructure Finance, and Institutional Investors, 2020
- Shady Attia, Pierre Alphonsine, Mohamed Amer, Guirec Ruellan, Environmental and Sustainability Indicators, Towards a European rating system for sustainable student housing: Key performance indicators (KPIs) and a multi-criteria assessment approach, 2020.
- Nicholas Dodd, Mauro Cordella, Marzia Traverso, Shane Donatello, JRC Technical Reports, Level(s) – A common EU framework of core sustainability indicators for office and residential buildings, 2017.
- BREEAM International Non-Domestic Refurbishment 2015, Technical Manual, BRE Global Ltd, 2015.
- LEED Green Building Rating System Version 2.0, Leadership in Energy and Environmental Design, 2020.
- OECD, School Education During Covid-19, were teachers and students ready?, Coronavirus Italy Note, 2020
- Cushman & Wakefield, Italian Real Estate Market Overview, Italy, 2020
- CBRE, Italian Real Estate Market Outlook, Italy, 2021
- Gaetano Casertano, Finanza Immobiliare, Wolters Kluwer Italia S.r.l, Italy, 2018
- Green school buildings are better for teachers and students | Center for Green Schools. (n.d.). Retrieved September 25, 2021, from https://www.centerforgreenschools.org/green-schools-are-better-learning.
- "Un anno in pandemia: le conseguenze sull'istruzione in Italia e nel mondo" https://www.savethechildren.it/blog-notizie/un-anno-pandemia-le-conseguenze-sull-istruzione-italia-e-mondo, Save The Children Onlus, Italy, 2021
- Borsa Italiana, Glossario Finanziario, https://www.borsaitaliana.it/borsa/glossario.html, 2021
- Costituzione Italiana, Articolo 42
- Ministero dell'Istruzione - Ufficio Gestione Patrimonio Informativo e Statistica, "Elaborazione su dati del Ministero dell'Istruzione", Italy, 2020