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ANTIN
INFRASTRUCTURE PARTNERS

AGRITECH AS AN EMERGING SEGMENT IN INFRASTRUCTURE INVESTING

Presentation of the fourth year research activity

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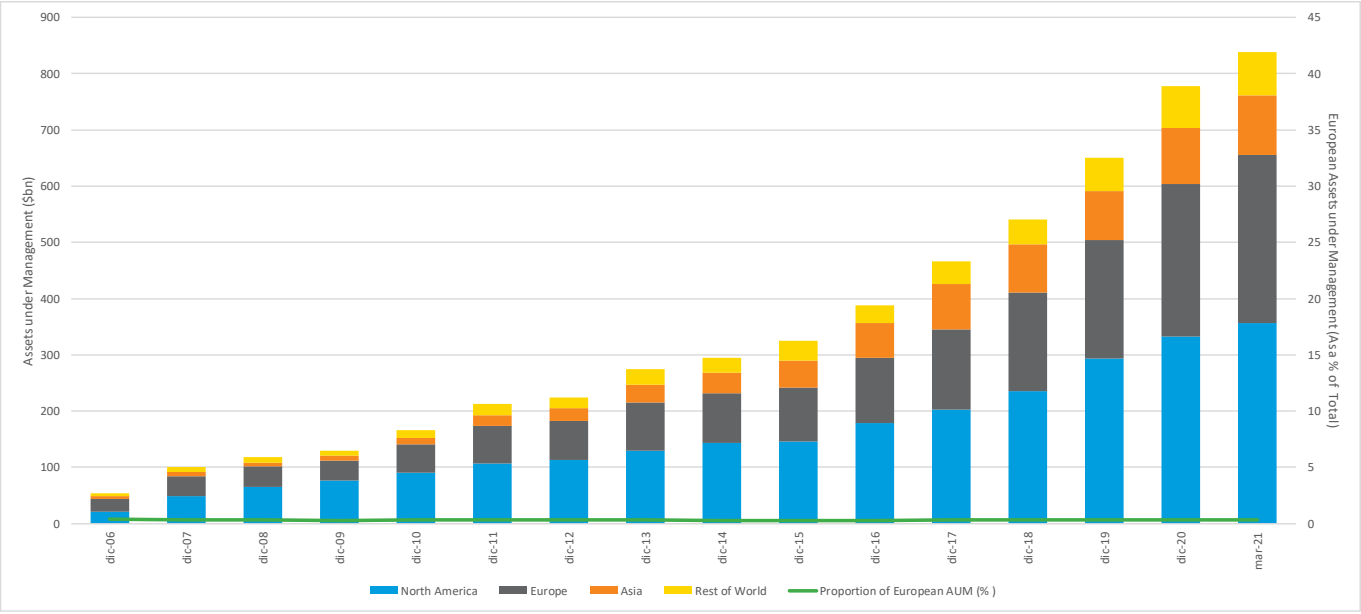
Ladies and Gentlemen, Dear Colleagues, Dear Students,

Good afternoon to everyone and welcome to the fifth event of what has become the annual appointment for all professionals and scholars working in the field of infrastructure and infrastructure investing and financing. Due to the long preparation of the event, with a still pending Covid-19 emergency, also this year we have opted to organize this annual meeting in a fully online format. Hopefully, in 2023 we will be able to return on our campus with an in-person event.

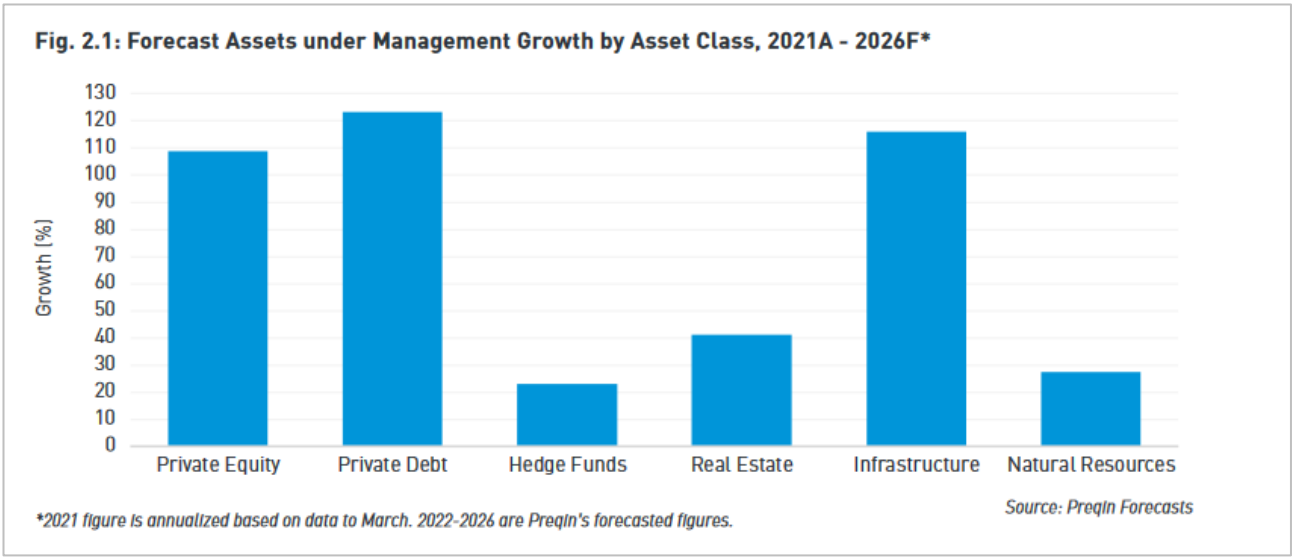
As in previous years, in my introductory speech I am going to give an overview of the current state of infrastructure investments (with a focus on unlisted infrastructure) and the challenges faced by investors and asset managers in the current economic and geopolitical environment. Then, I will focus on the objective of this year's research program. Agriculture, an emerging investment segment in the alternative assets space, is a sector with important consequences for the planet, and by its own nature is characterized by significant externalities. Furthermore, it is a sector strongly linked to ESG issues. Infrastructure investors and asset managers are increasingly looking at agriculture as an interesting investment proposition. But which applications/segments should they invest in? And how much is the potential in terms of return and risk? These are difficult questions to solve, but -- this is at least our hope -- we have provided extensive analysis with the fourth year activity of the Antin IP Associate Professorship in Infrastructure Finance.

1. How did infrastructure perform in 2021? And what are the challenges for the next few years?

According to Preqin, in March 2021 the AuM for unlisted Infrastructure assets (equity and debt) totaled $838 billion worldwide, the highest ever. Of this amount, more than one third was represented by European AuM. To put these numbers in perspective, this value was $213bn only 10 years ago.



Yet, the asset class seems to have a bright future ahead. Estimates provided by Preqin indicate a growth of 116% to 2026, second only to private debt and private equity.[1]



The numbers confirm the resilience of this asset class even in periods characterized by volatility and extreme market uncertainty: Covid-19 first, and geopolitical tensions more recently, have only marginally affected the attitude of investors to allocate resources to this segment of alternative investments compared to other segments like private equity and venture capital.

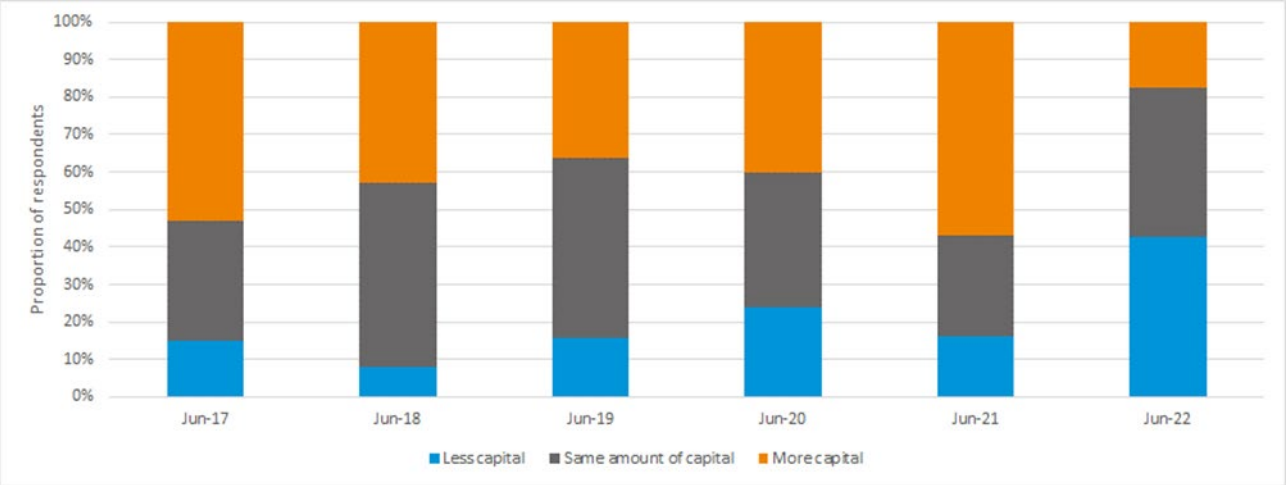
The attributes of infrastructure – stable cash flows, recession-resilient returns and de-correlation with some traditional asset classes – have paid out well, even in face of an increasingly unpredictable macroeconomic scenario. One special attribute is the hedge against inflation. In the current economic scenario, this is the rising new concern among investors. In fact in November 2021, about 35% of market participants interviewed by Preqin, up from slightly above 10% one year before, declared that inflation is one of the new key challenges. Luckily, infrastructure is an ideal asset class in situations of rising (and unexpected) inflation, as we have documented in the first Bocconi - Antin IP Report on Infrastructure Pricing, which is one new outputs of the research activity of the Antin IP Professorship in Infrastructure Finance.[2]

Based on these premises, it comes as no surprise to see that in June 2022 about 57% of investors say that they are willing to commit the same or more capital to infrastructure than the previous 12 months. While high in absolute terms, this figure shows that infrastructure is facing investors' risk-off mode, in line with other alternative asset classes. Indeed, this percentage is well below the 84% surveyed in June 2021.

[1] Preqin (2022), Global Infrastructure Report.

[2] Gatti, S.; Chiarella, C.; Favero, C. and Mattia Pianorsi (2022), Hedging Inflation with Infrastructure, Working Paper, Baffi Carefin Centre, Bocconi University.

Investors' expected capital commitments to infrastructure funds in the next 12 months compared with the previous 12 months, 2017 - 2022

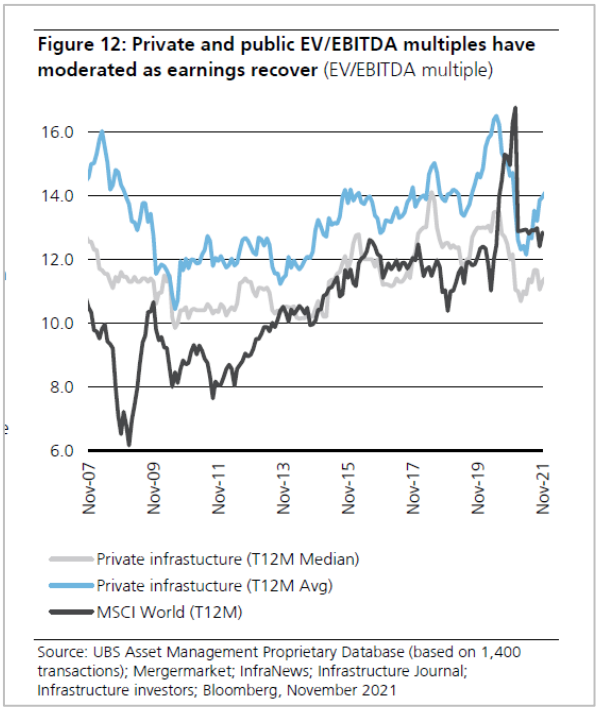


Source: Preqin, Preqin Investor Outlook: Alternative Assets, H2 2022

Against this backdrop, there are clear challenges that investors have to face in the near future.

The most cited concerns are rising interest rates (57% of respondents to Preqin survey, a remarkable jump from 26% of June 2021), excessive prices/asset valuations (39%) and competition for good assets (36%). Regarding acquisition prices and multiples, it is interesting to note that after a spike of median EV/EBITDA multiples for private infrastructure recorded in 2020 (as a result of falling earnings which were not accompanied by a proportional drop of enterprise values), in 2021 median multiples have moderated and are now trading at a slight discount on publicly listed infrastructure. However, as I've said, rising interest rates are likely to put additional pressure on private asset valuations in the near future, following the sharp correction of listed assets we've experienced in the past few months.[3]

[3] See UBS, Looking Ahead, Infrastructure Outlook to 2022.



An obvious consequence of competition for good assets and inflated asset valuations has been the shift of investors from core infrastructure to core plus, and even more often to value added/opportunistic asset allocations. The search for yield is a challenge for asset managers, who have to identify new segments and new "investment themes" to reward the constant commitment of their investors in the infrastructure asset class.

We may be tempted, but I think it is too simplistic to point to ESG – Environmental, Social and Governance (with a particular accent on the "E") as the emerging "theme" for infrastructure investments. However, it is a fact that greater attention from policymakers, investors and financial institutions is calling attention to the need to invest in assets with a clear ESG footprint. This need is accompanied by the new focus on externalities in the evaluation process of infrastructure investments.[4]

Yet, the renewed attention to ESG issues is driven by investors demanding that their asset managers embed robust ESG practices in investment appraisal. In fact, 70% of investors interviewed by Preqin say that asset managers are establishing ESG policies given the demand coming from their clients.[5]

2. Agriculture and infrastructure investing

If we define infrastructure not on a sectorial basis but on the key attributes of the investment seen in the previous section – assets providing essential services, offering downside protection, with stable cash flows and possibly hedged against inflation – agriculture is an ideal candidate to be part of the infrastructure space.

[4] CDRI (2021), Infrastructure Standards – Building Blocks for a Resilient Future – Technical Note and CCRI (2021), Resilience – Addressing Physical Climate Risks in Infrastructure Investment

[5] Preqin (2021), ESG in Alternatives: Navigating the Climate Crisis

There are very good reasons for this.

1. *Growing demand and changing dietary preferences*: The expected growth of the world population to 9.8 billion people in 2050,[6] a rise in the average income (from 8,100 euro in 2012 to 13,500 euro in 2050), and ongoing urbanization will determine a surge in food demand and changes in the dietary preferences of many countries.
2. *Climate change and resource scarcity*: In technical terms, the ecological footprint of humankind is currently 1.7 times larger than the Earth's biocapacity. In pragmatic terms, as we stand now, that means we need 1.7 Earths to sustain global population. Agri-food systems account for 31% of the GHG (greenhouse gas emissions) derived from human activities. Agriculture occupies 40% of world's land, and it accounts for 70% of water use (as a side note, water demand is expected to grow by 26% from 2020 to 2050, with increasing supply shortages concentrated in specific parts of the globe). At the same time, farmers are increasingly affected by climate change, water and land scarcity and reduced crop quality. Investors seem aware of the resource scarcity issue. In fact, about 60% of them surveyed by Preqin see water management and natural disasters/climate change as the most relevant issues for ESG investing[7].
3. *Integration of global trade and the new geopolitical order*: Against the backdrop of the increasing demand for food and the scarcity of water and arable land, trade has a key role to play. On one side, import and export flows may counterbalance domestic lack of food supply that may be due to limited natural resources or supply chains disruption. On the other side, however, recent geopolitical tensions could redesign and reset what years of globalization have made possible in the last decades.
4. *Technological innovation and digitalization processes*: Technology could drive growth in yields up to 30%; it could improve processes efficiency and the environmental footprint; and it could pave the way to innovative business models along the entire agri-food value chain.

These megatrends have a direct impact on the agriculture value chain and make agriculture an essential sector to guarantee a sustainable and livable planet.

Available data confirm that the attention to natural resources, timber and agriculture is growing among investors. At the end of 2021, as far as assets under management, unlisted agriculture assets have soared more than fourfold since 2012, from about $10 billion to more than $40 billion in 2021.[8] The quadrupling of AuM has been accompanied by a growth of dry powder that has almost doubled since 2012, from $4.6 to $8.6 billion.

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[6] Source: UN Population Division https://www.un.org/development/desa/pd/; Roland Berger (2022), Trend Compendium – Megatrend 1 – People and Society and European Parliament (2019), Megatrends in the agri-food sector: global overview and possible policy response from an EU perspective.

[7] Preqin (2021), ESG in Alternatives: Navigating the Climate Crisis and Roland Berger (2022), Megatrend 3 - Environment and Resources.

[8] Preqin (2022), Quarterly Update – Natural Resources Q1-2022

This year's research project has analyzed these megatrends with the objective of identifying the key challenges for the sector and the innovation underway. With a mix of desk analysis and structured interviews, our team of researchers has identified a large set of promising investable applications and mapped them in terms of potential interest for infrastructure investors and asset managers. While some of them still belong to the world of pure Venture Capital and startups, others can already represent interesting investment opportunities for infrastructure-oriented investors. I will not go into detail on each of them as I will leave this task to my colleagues in the following presentations of this first part of the event.

* * *

After this brief introduction, I would like to conclude by acknowledging the support and help of the people who made also the fourth year of the Professorship a rewarding experience.

First of all, I would like to thank Mark Crosbie and Alain Rauscher, the founding partners of Antin IP. Mark is here today with us and his presence is a very strong signal of how important Antin IP considers the strategic partnership with our University, a partnership that will be renewed next year for another five-year period. Antin has always believed in the need to generate and disseminate the culture of infrastructure and I am happy to say that we are developing research and knowledge together.

Second, let me thank Antin's Nathalie Kosciusko-Morizet, Angelika Schöchlin and Pietro Roulph . This group has been the interface for me and our Bocconi team during this year's research plan. What makes their activity important is their meticulous attention to what we have produced and their willingness to provide smart comments, suggestions and indications coming from their business practice.

Third, let me thank the whole Bocconi Team: Vitaliano Fiorillo, Marianna Lo Zoppo, Aristea Saputo and Carlo Chiarella for preparing the research report. This report will be published next year by a premier international publisher. This report will be published next year by a premier international publisher. Together with this report, this year we are also pleased to present the first Bocconi - Antin IP Report dedicated to Infrastructure Asset Pricing. In the first issue, we look at the properties of the infrastructure asset class as a hedge against inflation. For this, let me thank (again) Carlo Chiarella, Carlo Favero and Mattia Pianorsi.

Fourth, a sincere thank you goes to the panelists who have agreed to discuss "Can Agriculture become an asset class in the infrastructure space?" (as listed in the program). I will not mention each of them by name but allow me to join Rector Verona in extending a warm welcome to this virtual event.

Lastly, a final thank you to the Rector for his welcome speech and to Dr. Riccardo Taranto, Bocconi University CEO for his closing remarks. Dr. Taranto was here last September and I am sure that, given the topics covered in this year's research plan, he will be pleased to give us indications as to how Bocconi approaches to issue of sustainability.

Thank you very much.