

REFlexions

A biannual digest for the real estate investment management industry | Issue 9 | EMEA | 2019

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Foreword



Dear readers,

Welcome to the ninth edition of REflexions, packed full of insights into the real estate industry.

To the outside world, real estate is generally perceived as the buildings we live, work, shop and socialize in; to us experts, it is so much more—it is a complicated and specialized industry that drives change and pushes us beyond the standard perception of four walls and a roof.

With this in mind, we are thrilled to present a review of our Real Estate Predictions for 2019—our views on what the future holds. We hope you find this insightful.

How many of you have heard about digital twinning? We've all heard of town twinning where towns and cities are "twinned" across the world; a modern concept started after the Second World War to foster friendship and understanding, plus encourage trade and tourism. So is there a link between town twinning and digital twinning? Both certainly involve linking customers and assets together. Make up your own mind by reading what our experts have to say on the subject.

Continuing on the theme of intriguing links, what about the impact of driverless cars on commercial real estate properties? In fact, we believe there could be significant positive impacts in store for the future. Think about the potential (re)development and/or repurposing opportunities that driverless cars could bring—the freeing-up of car parks in prime location, reduced need for wide streets and more efficient traffic management. Wider use of driverless vehicles will change location dynamics of real estate, so don't be the last in the queue.

Buzzwords exist in every industry, sector and niche. Some are intrinsically intertwined into the fabric of our professional lives such as BEPS, ATAD and AIFMD; others transcend industries such as blockchain, artificial intelligence and cloud computing. Operational transformation is another phrase that comes up regularly in the financial sector, but what of its impact on RE? We are sometimes considered as relatively late adopters of this phenomenon, but our interview with Pierre Sémont, Chief Transformation Office at AXA IM-Real Assets should give you food for thought.

The physical world of real estate can be considered as constant—everyday somewhere in the world buildings are being destroyed and others are rising up from the ground. The industry has evolved to create larger and higher structures more quickly than before. Our evolution as real estate experts lies in our collective efforts to understand how digital and physical can collide to create value across the value chain. Join us on the REflexions journey by sharing your insights in future editions. Until then, please enjoy this one.

A handwritten signature in black ink, appearing to be 'Benjamin Lam'.

Benjamin Lam
EMEA Real Estate Funds Co-Leader

A handwritten signature in black ink, appearing to be 'David Brown'.

David Brown
EMEA Real Estate Funds Co-Leader

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Operations transformation

Setting the course for the future

Interview with Pierre Sémont, Chief Transformation Officer at AXA IM-Real Assets

In times of economic uncertainty, digital transformation and regulative pressure, real estate asset managers are increasingly looking at sharpening their operational model in order to further drive growth and stay competitive. Pierre Sémont, Chief Transformation Officer at AXA IM-Real Assets spoke to Deloitte Partner, Benjamin Lam about putting operation transformation at the top of his agenda, and how his organization is primed to meet the challenges ahead. ➔



Pierre Sémont

Pierre is currently Chief Transformation Officer at AXA Investment Managers-Real Assets. His responsibilities include managing the design and implementation of the AXA IM-Real Assets future technology platform and ensuring it is compatible with its future target operating model. Pierre was previously Head of Middle Office and Data Management and joined AXA IM-Real Assets in 2013. His main objective was to take over the responsibility of the Middle Office of the Real Assets Finance division, implementing the new front-to-back set-up of the fast growing CRE loans business. He has 12 years of industry experience.



Benjamin Lam:
What does your role entail and what are your priorities?

Pierre Sémont:
Eighteen months ago, AXA IM–Real Assets launched its transformation program by creating a dedicated team, composed of internal business experts, to review our operating model. Internally, we are looking at a simplification and a harmonization of our business processes across our different territories, while externally, we're aiming to reduce the number of providers on core, outsourced services (e.g. property management, SPV accounting and corporate services, insurance). This target operating model will be supported by a significant investment in our technology platform as we believe that this will become a key differentiator in the real estate industry.

This transformation journey should enable our staff to focus on valuable tasks, investment decisions, and new investment opportunities, while generating investment performance for our investors.

Benjamin Lam:
Can you explain the drivers for real estate investment managers to undergo such a transformation process?

Pierre Sémont:
The increasing allocation to real estate by institutional investors has generated harsher competition, a stronger pressure on management fees among top league asset managers, and demand for AXA IM–Real Assets to retain its position as a leading real estate player in Europe¹. In recent years, the regulation on alternative asset classes has been reinforced and requires more transparency and controls on our investments and funds. This overall environment encourages investment managers to streamline their processes and increase their efficiency to meet investors' and regulators' expectations.

Benjamin Lam:
What challenges do you face in implementing these changes?

Pierre Sémont:
The global financial service industry has been experiencing transformation, notably on technology, for years now, but the real estate industry is a late-adopter. We can't change alone as we interact on a daily basis with other stakeholders (peers, property managers, brokers, accountants, lawyers).

Nevertheless, several key players, like us, are pushing to increase harmonization of services, enhance quality and sharing of data, and reduce local or asset specificities. This transformation must be a collective effort to benefit the whole sector.

Benjamin Lam:
What roles do your service providers and outsourcing play?

Pierre Sémont:
Service providers are instrumental in our value chain and have a key role to play in data-sharing harmonization. In fact, global service providers are often unable to provide the same level of services or use the same systems across their different offices, so they are due their own transformation!

On our side, outsourcing is considered when and where we do not have the capacity or expertise internally—and we intend to build integrated processes with our service providers within our transformation program.



1. INREV/ANREV Fund Manager Survey – May 2018 in terms of assets under management.

Benjamin Lam:
Buzzwords like robotics, blockchain, cloud computing and artificial intelligence are on everyone's lips and are finding their way into organizations. How do you think these technologies will transform the business? Are they already part of the transformation journey?

Pierre Sémont:
 The question isn't if these new technologies will enter the real estate industry, but when—and how much it will disrupt the business. Nevertheless, harmonization and standardization of data and processes (what we are aiming for with our transformation program) remain the prerequisites in order to gain the full benefit of these innovations. Within our technology transformation journey, we are assessing opportunities to run proof of concepts with PropTechs on a small scale, before rolling it out across the organization.

Benjamin Lam:
How does your organization embrace transformation activities; are they perceived in a positive way?

Pierre Sémont:
 AXA IM–Real Assets has always been recognized for its capacity to innovate, so managing change is part of our DNA. However, adapting yourself to a new process, system or set-up is often a challenge for any individual. From the earliest stages of our transformation journey, we have involved business teams in our program and have actively communicated on the objectives and timeline of implementation. Staff engagement is one key success factor in the delivery of the project and we're paying even more attention now as we're moving to effectively change our operating model.

Benjamin Lam:
Where would you like the organization to be in five years?

Pierre Sémont:
 Our transformation program should enable us to remain among the leading real estate asset managers and, even, strengthen our positioning and our capacity to generate performance for our investors. Modern technology with enhanced data quality, will offer new opportunities for our decision-making processes at fund and asset levels, and innovation will continue to be embedded within our organization. ●

[Our] target operating model will be supported by a significant investment in our technology platform as we believe that this will become a key differentiator in the real estate industry.

Digital twinning in real estate

Humanizing buildings with Industry 4.0

As technology gets more pervasive, and smart buildings and precincts develop, real estate companies will (and some already do) use their smarts to anticipate both customer and technological needs. A good way to do this, and to cut time and costs, is to create a digital twin of the physical assets. ➔

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Centrally running and managing the building is just the beginning of the benefits of digital twinning. Getting real time data on how tenants are using the building gives you the capability to provide really useful and value-adding services for the tenants. With the data on maintenance requirements sourced from smart sensors located throughout the building, downtime is reduced, as are its costs. In addition, the tenant experience is enhanced.

Digital twinning optimizes operations, improves the customer experience, delivers benefits across the full lifecycle of a building, and simulates complex scenarios. It is industry 4.0, and it is strategic. It is, in fact, the next innovation stage in today's technology-laden smart building real estate industry.

Buildings are more than assets

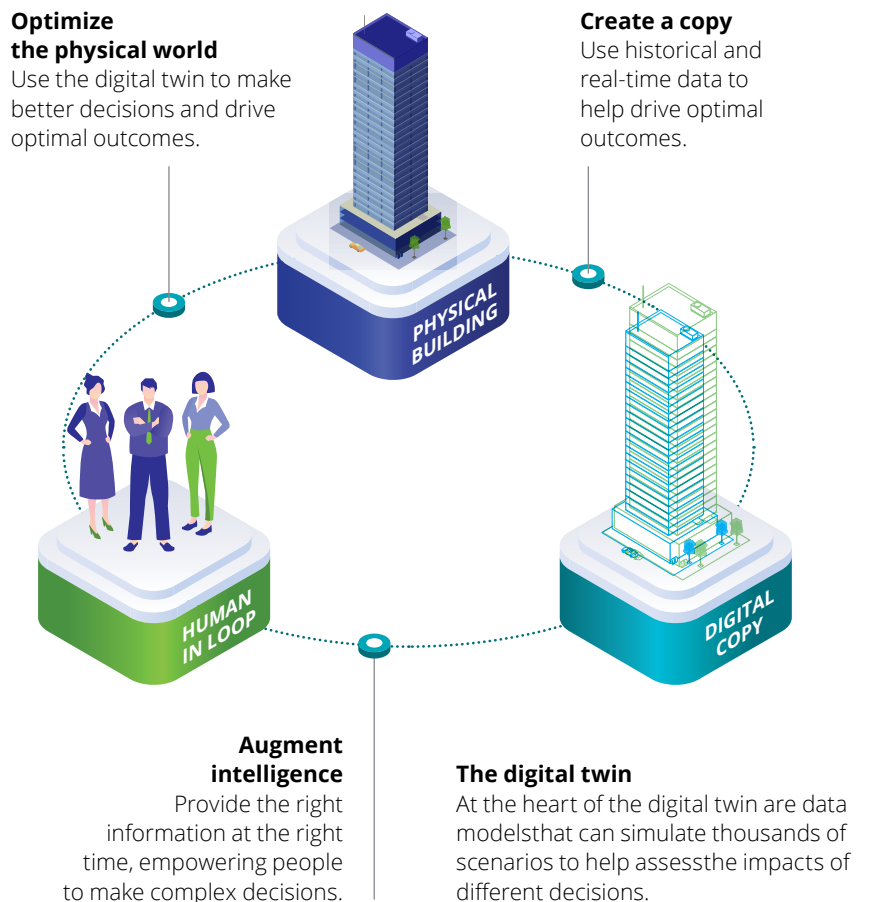
As complex, high value assets, with equally complex lifecycles, buildings present an ideal opportunity to realize the benefits of digital twinning. Moreover, buildings are so much more than just physical assets, as they nurture an environment where people live and work, facilitate social interactions, foster communities, and offer opportunities to improve individual outcomes.

From a corporate perspective, they drive loyalty and build brand. And on a win-win basis they help to create healthier, happier and more productive people.

The digital twin expands as it incorporates each new simulation and use case, slowly building up a complete view of the entire building across its lifecycle.



Entirely new ways of designing buildings will start to emerge, as designers have access to complex simulations of entire buildings that provide a sandbox environment in which to test new designs.



Considering how the digital twin empowers humans, it is critical in optimizing occupant experiences, not just physical infrastructure.

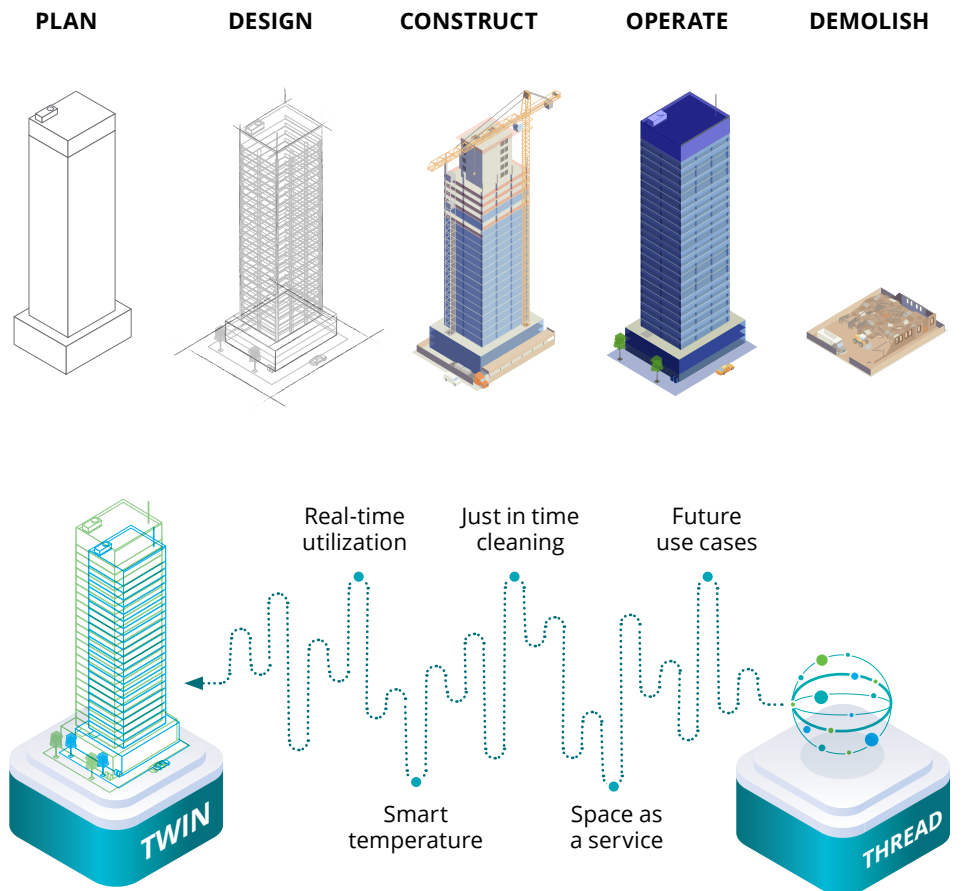


Approaching a building as an ecosystem lets you create a digital twin to optimize far more than just energy use. You can completely reimagine things, like air quality, temperature control, furnishings and facilities that respond to human sensitivity and are personalized through a series of personas.

Breaking down the digital twin

Creating a complete digital twin that can do this is a complex journey. It is important to break it down into smaller, modular digital twins, which can eventually integrate together over time. This allows faster development of the twin, and to prioritize use cases in order to build momentum and realize short-term value.

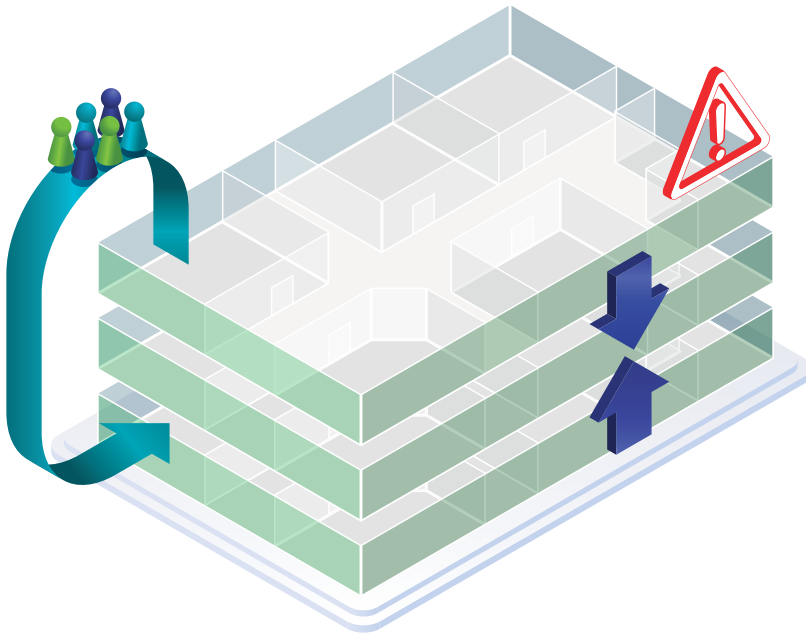
This approach is the most efficient method to create the roadmap for a complete digital twin of the entire building across its entire lifecycle. It also starts the process of digitally twinning the entire property portfolio. ➔



The digital thread enables the integration of multiple digital twins into one single evolving view of a building.



Real estate assets have been getting progressively 'smarter' across industries, but the digital twin represents the next major driver of change because of these powerful predictive capabilities.



Choosing to optimize the Heating, Ventilation, Air Conditioning (HVAC) and lighting may not be the use case that redefines the industry, but strategically it makes sense. In the average commercial office building, around 10-15 percent of operating costs are due to electricity costs (of which almost 70 percent is associated with HVAC and lighting). These are substantial costs largely driven by tenant use of a building.

Digital twins will enable better visibility of how tenants use a building, and in time, the ability to simulate and hence forecast how tenants will move and interact. This will allow for more efficient HVAC and lighting management, and enable more optimal cleaning rostering while maintaining tenant experience.

In this way, it is a use case that will drive immediate and sustained cost savings, which in turn, helps build confidence in the digital twin, and paves the way for more complex use cases.

A digital twin enabled future

The digital twin expands as it incorporates each new simulation and use case, slowly building up a complete view of the entire building across its lifecycle, and integrating any disparate systems to create a centralized repository for all data and decision-making. This is often referred to as the digital thread. With a digital thread and digital twin in place, the real industry shift can begin.

Entirely new ways of designing buildings will start to emerge, as designers have access to complex simulations of entire buildings that provide a sandbox environment in which to test new designs. The entire construction process can be planned, visualized, and optimized before ground is even broken. Construction sites can therefore be managed more effectively, now able to predict exactly what impacts mean delays and which decisions to make to affect the overall construction process. The ability to monitor safety and compliance in real-time saves lives by predicting emergencies before they occur.

Self-maintaining buildings will become more commonplace. The digital twin can predict when something will fail, book a contractor, guide them to the asset, provide specifications and historical information, and then invoice them once the job is complete.

Through simulations, workplaces will be able to redefine the way spaces are structured and dynamically reorganized. There will be a shift to bespoke spaces and multimodal workstations that can be adapted in near to real-time to respond to the unique needs of different teams. Retail will take advantage of simulations to test new store layouts and design spaces that engage consumers in a more meaningful way. The health sector will take advantage of staff and patient simulations to minimize friction and bottlenecks, allocate medical supplies more efficiently, and optimize staff rostering to meet current needs and to predict future ones.

Another key use case is optimizing how people are distributed throughout a space, to both improve utilization and to adapt to meet teams' evolving ways of working.

The next industry-wide distribution

Real estate assets have been getting progressively 'smarter' across industries, but the digital twin represents the next major driver of change because of these powerful predictive capabilities. Given the complexities involved with creating a complete digital twin, the industry is currently focused on delivering value for smaller, more specific digital twin use cases.

These aren't big enough to completely disrupt the industry yet, but as these use cases are slowly combined into a complete digital twin, companies will be able to optimize entire buildings, precincts and portfolios in every stage of the lifecycle. As a result, new business models and market offerings will emerge and the way spaces are designed and built will be redefined. Buildings will become more human, able to understand human sensitivity better and have the capability to nurture the rich ecosystems they contain. It will no longer be sufficient to design, build and lease a space.

The space will need to think for itself and react to the world around it. These large-scale changes, enabled by the predictive capabilities of a digital twin, will drive a dramatic disruption of the real estate industry. ●

Digital Twinning is one of our real estate predictions this year. Further information is available at

<https://deloitte.com/2020/04/20/digital-twinning>



An overview for fund managers

The impact of ATAD II on real estate asset managers and the implications come 2020.

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Since the financial crisis in 2008, the tax, regulatory and political landscape within the European Union has evolved—and is expected to change further still in the years to come.

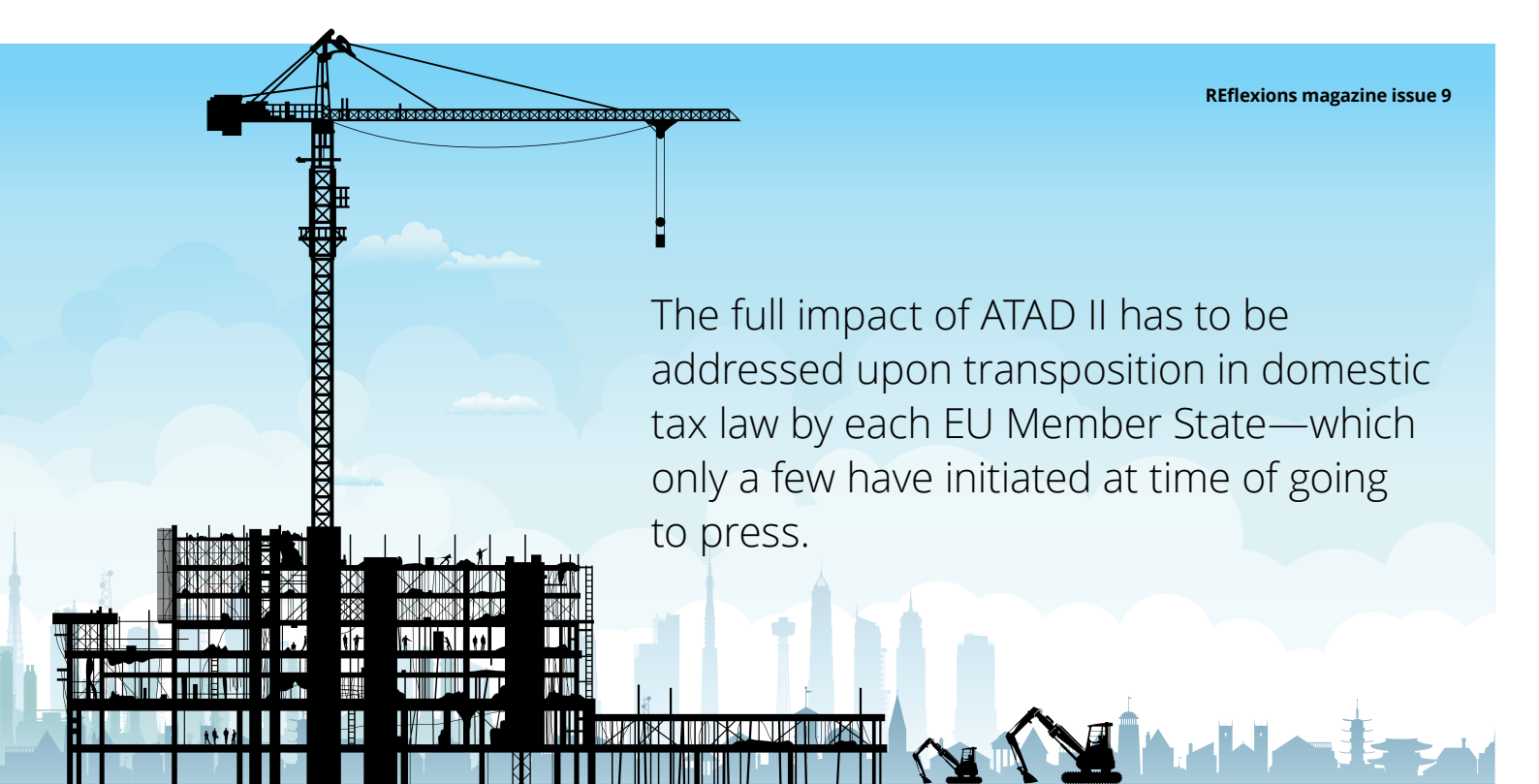
The daily life of an asset manager now involves regular re-education on new acronyms and ongoing changes within the industry. Such a dynamic environment has sparked a shift in requirements and a need to adapt at all levels of the operating model and value chain.

In particular, following the implementation of the OECD's Base Erosion and Profit Shifting (BEPS) measures, the European Commission presented an anti-tax avoidance package on 28 January 2016 and, by 20 June 2016, the Anti-Tax Avoidance Directive (ATAD I) was adopted. The aim of ATAD I was to create a minimum level of protection against corporate tax avoidance throughout the EU, while ensuring a fairer and more stable environment for businesses. The ATAD I introduced five measures including hybrid mismatch provisions between European jurisdictions.

On 29 May 2017, the EU Council approved Directive 2017/952/EU (ATAD II or the "Directive"), which amended ATAD I. The ATAD II aims to extend the scope of ATAD I for hybrid mismatches involving non-EU countries.

As with any EU directive, the measures of ATAD II first need to be implemented into each EU Member State's domestic tax legislation. Expectation is that EU Member States are able to introduce domestic legislation for ATAD II to be applicable as of 1 January 2020 (except for reverse hybrid mismatches, which may be applicable with a delay, as of 1 January 2022). The full impact of ATAD II has to be addressed upon transposition in domestic tax law by each EU Member State—only a few have initiated this transposition process at time of going to press.

However, it is expected that ATAD II will have a significant impact on how real estate alternative investment funds, and its investments, will be structured. Hence, the aim of this article is to shine a spotlight on the potential consequences of ATAD II for real estate asset managers and to outline some ideas as food for further thought.



The full impact of ATAD II has to be addressed upon transposition in domestic tax law by each EU Member State—which only a few have initiated at time of going to press.

Focus on hybrid mismatches

The objective of the hybrid mismatches provision is to neutralize the tax effects of hybrid arrangements, which exploit differences in the tax treatment of an entity or instrument under the laws of two or more EU Member States (MS) as well as in relation to non-EU or third countries.

A hybrid mismatch could be defined as the difference in the legal characterization of a financial instrument or an entity when either:

- A structured arrangement exists between the taxpayer and a party established in another jurisdiction
- A commercial or financial relationship exists between the taxpayer and an “associated enterprise” (as explained further below) established in another jurisdiction (including a permanent establishment of an entity in another country); and

To the extent, this could result in:

- Deduction of a payment without a corresponding inclusion of such payment in the taxable income of the payee (also referred to as “deduction without inclusion”). Broadly, there is a deduction without inclusion when a payment is taken at the level of the paying entity without a corresponding inclusion for tax purposes of the same payment at the level of the receiving entity

- Deduction of the same operational expenses or losses (also referred to as “double deduction”). This refers to occasions when a deduction of the same payment, expenses or losses, occurs in an entity in which the payment has its source, the expenses are incurred, or the losses are suffered and in another entity.

In fact, the definition tackles two categories of hybrids: hybrid instruments and hybrid entities, resulting in either, deduction without inclusion or double deduction of a payment. We focus below on some of the focal concepts of these hybrid provisions.

Hybrid instrument and hybrid entity

The hybrid instrument

Article 9 of the Directive describes the case of a hybrid instrument, which could be largely interpreted as the hybrid mismatches that result from payments under a financial instrument.

Typically, a financial instrument may be affected by rules where the tax treatment (resulting from its qualification [debt or equity]) will differ from the payer jurisdiction or the payee jurisdiction.

The hybrid entity

The Directive introduces two specific cases related to hybrid entities, aiming at highlighting when hybrid mismatches result from a difference in the rules governing the allocation of payments under the laws of two jurisdictions. In that context, the

Directive describes the cases of:

- Hybrid mismatches that are the consequence of differences in the allocation of payments made to a hybrid entity or permanent establishment (including, payments to a disregarded permanent establishment)
- Hybrid mismatches that result from payments made by a hybrid entity to its owner, deemed payments between the head office and permanent establishment, or between two or more permanent establishments that are disregarded in the payee jurisdiction.

If the hybrid mismatch results in a deduction without inclusion, and regardless of whether the mismatch results from an entity or an instrument, the deduction will be denied in the jurisdiction of the payer (primary rule). Alternatively, the payment could be included in the tax base of the payee jurisdiction in case the deduction is not denied in the payer jurisdiction (secondary rule).

If the hybrid mismatch results in a double deduction, the deduction will either be denied in the investors’ jurisdiction or in the payer jurisdiction’s Member State (in case the deduction is not denied in the investor jurisdiction). Nevertheless, any double deduction will be eligible to set off against double inclusion of income. [➤](#)

EU Member States will each need to ascertain these provisions and determine their implementation rules with regards these ball-park concepts, and in particular how to navigate between these (primary vs. secondary) rules across multiple jurisdictions.

The principle of “associated enterprise” and the tricky concept of “acting together”

Hybrid mismatch outcomes may arise if either it involves two associated enterprises or, a taxpayer and an associated enterprise. An associated enterprise means an entity or an individual, which holds, directly or indirectly, a participation of more than 25% (50% in the case of hybrid entity) in the voting rights, capital ownership or profits of another entity.

Additionally, the Directive also extends the concept of associated enterprise to *“a person who acts together with another person in respect of the voting rights or capital ownership of an entity [and] shall be treated as holding a participation in all of the voting rights or capital ownership of that entity that are held by the other person”*. This is the so-called “acting together” concept.

Hence, the “associated enterprise” principle also covers a person who “acts together” with another person in respect of the voting rights or capital ownership of an entity. That person will be treated as holding a participation in all of the voting rights or capital ownership of that entity holding by the other person.

The “acting together” concept is newly introduced by ATAD II and, as yet, has not been clearly defined (some countries though, have similar concepts, that could provide basis for interpretation). However, ATAD II invites EU Member States to use the applicable explanations and examples provided by the Action 2 Report as a source of illustration or interpretation as they are consistent with the provisions of ATAD II and EU Law.

According to the Action 2 Report, two persons will be treated as “acting together” in respect of ownership or control of any voting rights or equity interest if:

- They are members of the same family
- One person regularly acts in accordance

with the wishes of the other person

- They have entered into an arrangement that has material impact on the value or control of any such rights or interest
- The same person or group of persons manages the ownership or control of any such rights or interest.

As noted above, the “acting together” concept is already present in some jurisdictions and used in different contexts, and may provide some guidance. However, given the pending implementation of the Directive, the interpretation of this concept should be closely monitored.

The reverse hybrid concept

Another introduction by the ATAD II, is the reverse hybrid mismatch concept. The related rules are applicable as of 1 January 2022. The reverse hybrid concept is applicable when one or more associated non-resident entities are holding (directly or indirectly) an aggregate of more than 50% of the voting rights, capital interests or rights to share profit in a hybrid entity incorporated in a MS. Non-resident entities view the hybrid entity as a taxable person (tax opaque) while the entity is tax transparent based on the laws of its Member State.

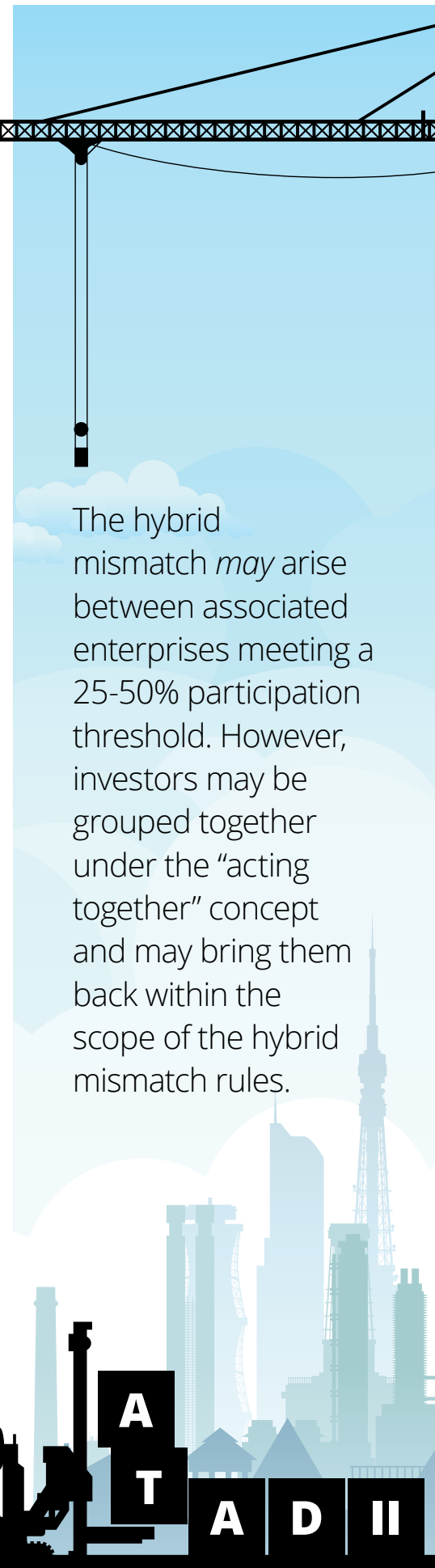
However, the hybrid entity in such circumstances should be regarded as a taxable person (tax opaque) in that Member State and taxed accordingly. The reverse hybrid rules do not apply for a collective investment vehicle as such an investment fund or vehicle holds a diversified portfolio of securities and is subject to investor-protection regulation in the Member State.

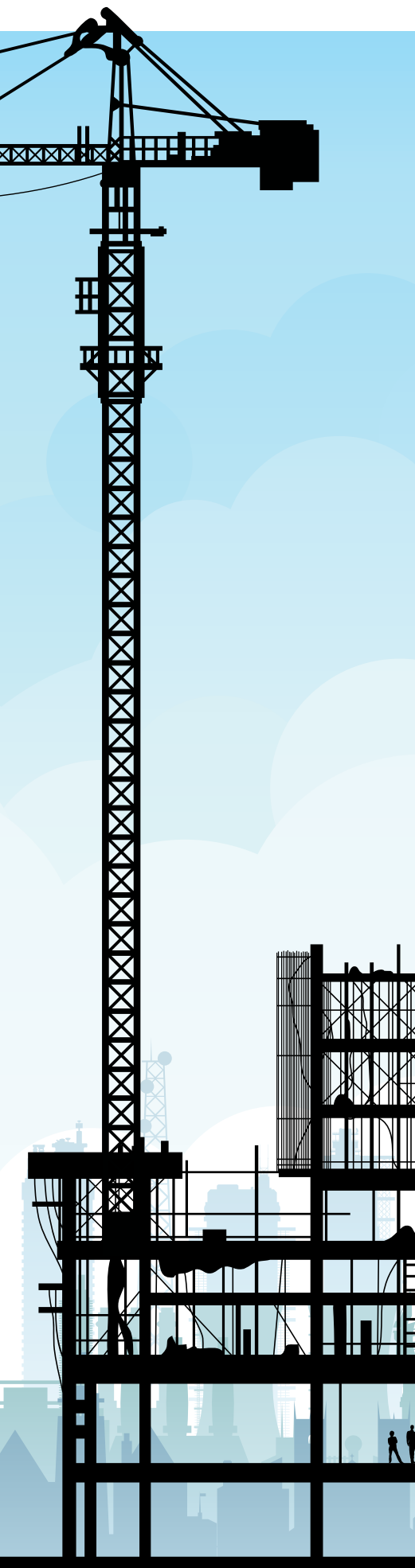
What do these mean for fund managers?

The following should be on the watch list for real estate asset managers:

Regarding hybrid instruments and hybrid entities

As per the Action 2 Report, the different tax qualification of a debt instrument between the lender and borrower states may lead to a hybrid mismatch outcome and result in denial of the related deduction in payer





jurisdiction (primary rule). The same mismatch situation may arise in the case of such a debt instrument attributed to an investor in a tax transparent investment (fund) vehicle, should the investor qualify the instrument differently from the payer jurisdiction.

A hybrid mismatch may also occur when the qualification of an entity considered as tax transparent in one jurisdiction, but considered as opaque from the other jurisdiction's perspective, leads to a discrepancy in the tax treatment of any payment made.

If left unchecked, these may create unintended deductibility concerns within a fund holding structure (in particular regarding the internal [shareholder] financing), or create an additional layer of taxation at fund/investor level. In light of this, fund managers will need to consider, identify and monitor their investor base. This is not a one-time only exercise, but goes hand-in-hand with continuous monitoring activity (beyond tax).

It should not be a well-intended exercise to identify the implications of correct feeder/blocker vehicles within a structure, but instead should be considered as part of the ongoing operational aspects of an investment fund.

The “acting together” concept

As mentioned before, hybrid mismatch may arise between associated enterprises meeting a 25-50% participation threshold.

Therefore, one might think that the hybrid mismatch rules may be of less concern to widely-held, collective investment vehicles. However, given the “acting together” concept, there could be an impact on the alternative investment fund industry at fund level. Since this concept may group investors whose investments are managed under a common mandate (e.g. same class of investors) or who are partners in an investment partnership, it may bring them back within the scope of the hybrid mismatch rules.

Hence, until there is further clarification via the domestic implementation of the Directive, it remains uncertain as to how to interpret the “acting together” concept within the alternative fund industry and the implications thereof.

Reverse hybrid and imported mismatches

Although there is a carve-out reference to collective investment vehicles within the Directive, it remains unclear as to whether this refers to regulatory supervision only, or if semi- or unregulated products are covered as well (provided they are managed by an authorized investment manager who is then subject to supervision).

It may well only refer to UCITS and completely exclude so-called non-CIV products—like most alternative investment funds.

Investor relations

Identifying sources of possible hybrid mismatch cases is one issue arising from the various hot topics circulating around the implications of ATAD II. However, how to manage investor relations in this respect is even more difficult.

Fund managers and advisors should actively work together to assess the possible ATAD II implications to investors, and address the related safeguards included in the relevant fund documentation (e.g. a clawback clause in the fund documentation or a questionnaire in the subscription booklet).

Take away

The ATAD II items are raising challenges both at fund level and from an investment structuring perspective. Asset managers now need to carefully consider the type of fund products and structure, in line with their investor base, to remain attractive whilst adapting their operational model to comply with the recent regulations arising from BEPS.

The impact of the hybrid mismatches need to be assessed on a case-by-case basis. Timing will be of the essence as the parameters of the Directive will be applicable as of 1 January 2020 (with an exception for 2022 for reverse hybrid mismatches). Hence, the implications of ATAD II will be immediate and will affect the practice as from fiscal year 2020 onwards. ●



Real estate predictions 2019

A constructive view on real estate

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The real estate and construction market has been evolving in recent years—and shows no sign of stopping. In light of new changes within the industry, it is important to stay on top of the latest developments. The Deloitte Real Estate Predictions 2019 look at the trends shaping the industry this year, from blockchain, to the future of work.

Data driven business models will change the real estate industry

As technology keeps developing and becomes more affordable—for both new and existing structures—and collaboration platforms, sensors, and smart devices continue to advance, the amount of data produced by buildings is increasing exponentially. This data can give real estate market participants (investors, asset managers, property managers, and tenants) a competitive advantage. When used effectively, it can help them avoid disruption while developing data-driven services and new business models focused on the specific needs of users, owners, or the property itself. However, only a joint effort among all real estate stakeholders (constructors, investors, owners, tenants,

and service providers) can optimize data to create insights that improve performance and profitability.

Digital twins in real estate: Humanizing buildings in the age of Industry 4.0

In a time when technology-laden smart buildings have become an industry standard, “digital twins” are poised to deliver the next stage of real estate innovation. A digital twin is the digital representation of a physical asset, process, or system that allows for predictive modelling in order to deliver proactive adjustments for assets. This technologically-enabled process can deliver greater strategic value for the real estate industry as a whole. [▶](#)

But while digital twins are similar to smart buildings in that they optimize operations and improve the customer experience, a twin can also deliver benefits across the full lifecycle of a building by simulating complex scenarios. Read more on the growth of digital twinning on page 8.

Industrial property: Ugly duckling no more

Not long ago, the industrial property market was considered the 'ugly duckling' of the real estate industry. However, in the last couple of years, industrial warehouses and distribution centers have emerged as the most desirable assets within commercial property, generating higher rental growth and returns than other main commercial sectors—all thanks to the rise of e-commerce. The perception of industrial real estate, once synonymous with noisy trucks and dirty yards, is now changing as automation, robotics, and other technological advances further reshape the sector.

Creating a better world: Circularity in real estate and construction

All around the world, governments, companies, and NGOs have committed to minimizing use of raw materials in the real estate and construction industry. For example, it was recently agreed in The Netherlands that by 2030, a 50 percent reduction in raw materials usage needed to be realized.

Actions like these dictate a fast transition toward a circular economy—that is an economy where resources and energy are renewable, regenerative, and cycled back into supply chains. Though the transition to circularity faces several barriers, there are also opportunities. One such opportunity being explored is the possibility of “activating” materials in financial reporting.

Use cases have shown that real estate owners are often unaware of, or underestimate, the financial value of the materials in their real estate assets. These use cases show that upon demolition of a real estate asset, substantial financial value—adjusted for demolition, transport, and re-usage costs—can be captured. This untapped value can affect financial reporting, prompting the financial incentive

needed to transition the real estate and construction sectors to a circular economy.

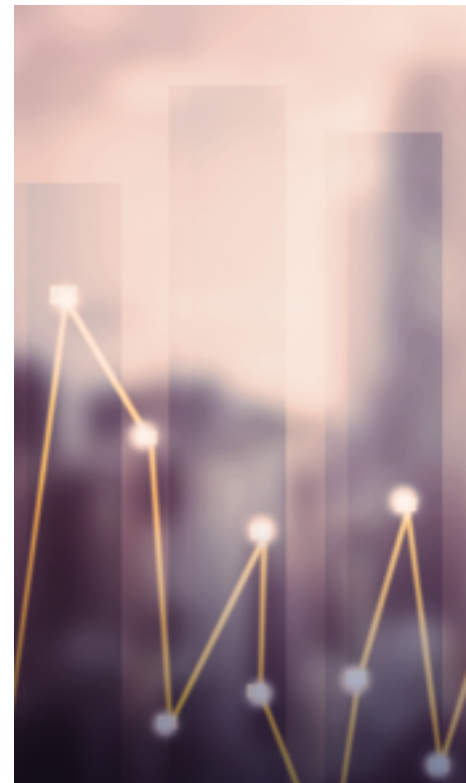
Cybersecurity issue one | Securing the enterprise: Assessing cyber risk in commercial real estate

As extensive technology advancements reshape the traditional commercial real estate (CRE) business model, owners and operators must contend with new forms of risk, including cyberattacks, information security, and data privacy. For example, the growing use of Internet of Things (IoT) technologies such as sensor-enabled building management systems could broaden the attack surface for CRE firms, increasing access to sensitive data that can cause financial and reputational damage to owners/operators and tenants. The question is, then, are CRE companies ready to handle cyber risks?

CRE companies should evaluate employees for their exposure to cyber risks. They should conduct trainings to help employees understand the potential threat and implications of various types of risks, especially cybercrimes, to themselves and to the company. CRE companies may also need to train or hire appropriate cyber risk talent in their organization. Finally, companies should drive behavioral change to instill the responsibility and mutual accountability for risk management among all employees.

Cybersecurity issue two | Cyber risk in the building lifecycle: Smarter buildings will know more about us

With modern buildings depending more and more on technology and becoming more and more interconnected, numerous questions are arising about their resistance to cyber risks. To optimize management and increase cost-efficiency while ensuring access to adaptable and comfortable living and working space, buildings are collecting and processing a great deal of information. Not just information about the structure itself, but about us—including such technical and private data as names, IDs, photos, and videos. Protecting this data—from generation, to storage, to disposal—must be a critical part of the new, smarter building management systems.



...it was recently agreed in The Netherlands that by 2030, a 50 percent reduction in raw materials usage needed to be realized.



To do this, real estate companies, third-party suppliers, and IT companies must embed security by design and privacy by design rules into their building development lifecycle.

Blockchain in real estate matures: From use cases, to practical applications

This is the fourth real estate prediction regarding blockchain, and this year's will mark a healthy shift in perception of the impact of blockchain technology: from revolution, to evolution. In the 2016 predictions, we highlighted the great potential of blockchain for the real estate market¹.

For 2017, we predicted it was going to be the year in which the first generation applications were to be built and a lot of proof of concepts were to be conducted in a wide array of use cases². In last year's prediction, we called for realism in the expectations around blockchain technology, and concluded that many steps needed to be taken in order to implement, produce, and integrate the solutions into the daily operations of real estate companies³.

We are now encountering a new realism more and more every day and that is a welcoming push towards a more practical approach to blockchain technology.

Building flexibility into real estate management

The real estate business is currently experiencing a shift in demand away from the traditional business operating model, to more flexible solutions. Technological advancements and digitization, the quest for sustainability, and changes in user lifestyles are all factors that are demanding a greater level of adaptability in real estate strategic management and value creation.

Given these changes in the marketplace, we expect the real estate business model to become even more disrupted. Many companies will need to adjust to this new environment in order to sustain their position.

Although these market trends may seem complex, they do create new opportunities and can be rewarding for the market players that are willing to adapt.

The future of work is changing: Real estate needs to change too

The world of work is changing. At Deloitte, we have identified seven major disruptors influencing the future of work. These include the automation and replacement of jobs, the advancement of AI and robotics, diversity and generational change, and the rise of the contingent workforce.

Clients in every industry are facing the challenges and opportunities presented by this disruption. Much thought is going into how they will impact the work completed within an organization and the workforce needed to do it; how work will be delivered, how businesses will be organized, how people are led and engaged and where, when and how people will work.

An equally significant impact will most likely be on the physical workplace, which occupiers, developers and investors need to carefully consider. ●

Interested in further reading on the topic? A detailed report of our predictions is available at

<https://deloi.tt/2OrPiRK>

1. 2016: Next game changer for real estate?

2. 2017: Done talking start building

3. 2018: Rome wasn't built in a day

Infrastructure fund structuring: new rules for a (not so) old game

How the tax evolution influences the infrastructure fund organization and what asset managers need to keep in mind to be up-to-date with new developments.

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Director Tax
Deloitte



Over the last decade, we have witnessed a stream of record-breaking events in terms of both fund raising and deal size within the infrastructure funds sector. While this trend demonstrates the strengthening of infrastructure as an asset class, the increased capital and therefore competition represents significant challenges—as well as opportunities—for asset managers and investors.

Throughout 2018 we saw an increased concentration of capital distributed among fewer funds with 67 funds closing in 2018 (compared to 94 in 2017), raising a combined US\$85 billion (compared to US\$75 billion in 2017)¹. At the same time, while we have seen a decrease of 22 percent in the number of completed deals compared to 2017, the average deal size increased (from US\$492 million in 2017 to US\$542 million)², emphasizing the universal consensus that valuations are high.

Fund managers are facing increased pressure to successfully deploy the record-breaking amounts of capital raised in recent years, while also maintaining the strong risk-adjusted returns that have previously attracted investors to this asset class.

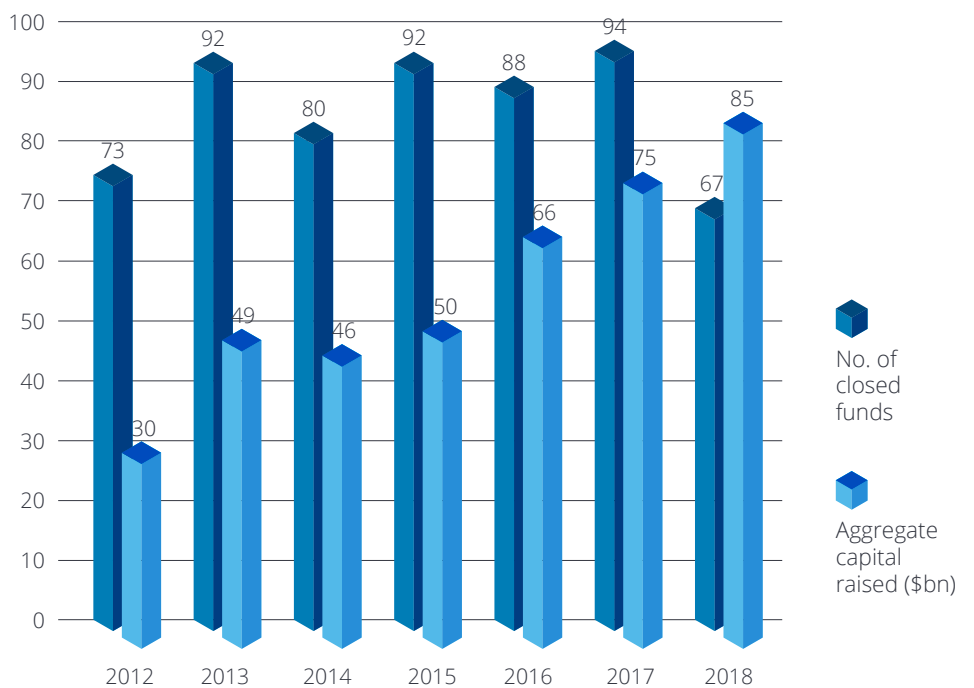
While these internally generated pressures are high on the agendas of both GPs and LPs, there are a number of external factors and challenges that, despite existing for some time, have increased in prominence in recent years. These external factors and challenges are intrinsically linked to the considerable fund raising within the infrastructure fund sector.

We have focused on a selection of the external factors, which should be at the forefront of any GP or LP's mind, both when launching a new fund or when revisiting existing funds before asset disposals.

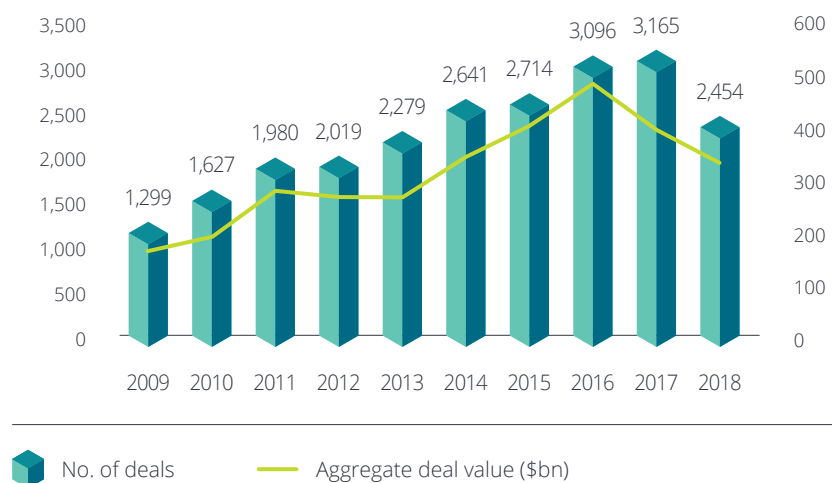
Alternative Investment Fund Managers Directive (AIFMD)

The European Directive on Alternative Investment Fund Managers (AIFMD) came into force in July 2013 and, through regulating fund managers (AIFMs), it has

Annual global unlisted infrastructure fundraising, 2012 - 2018



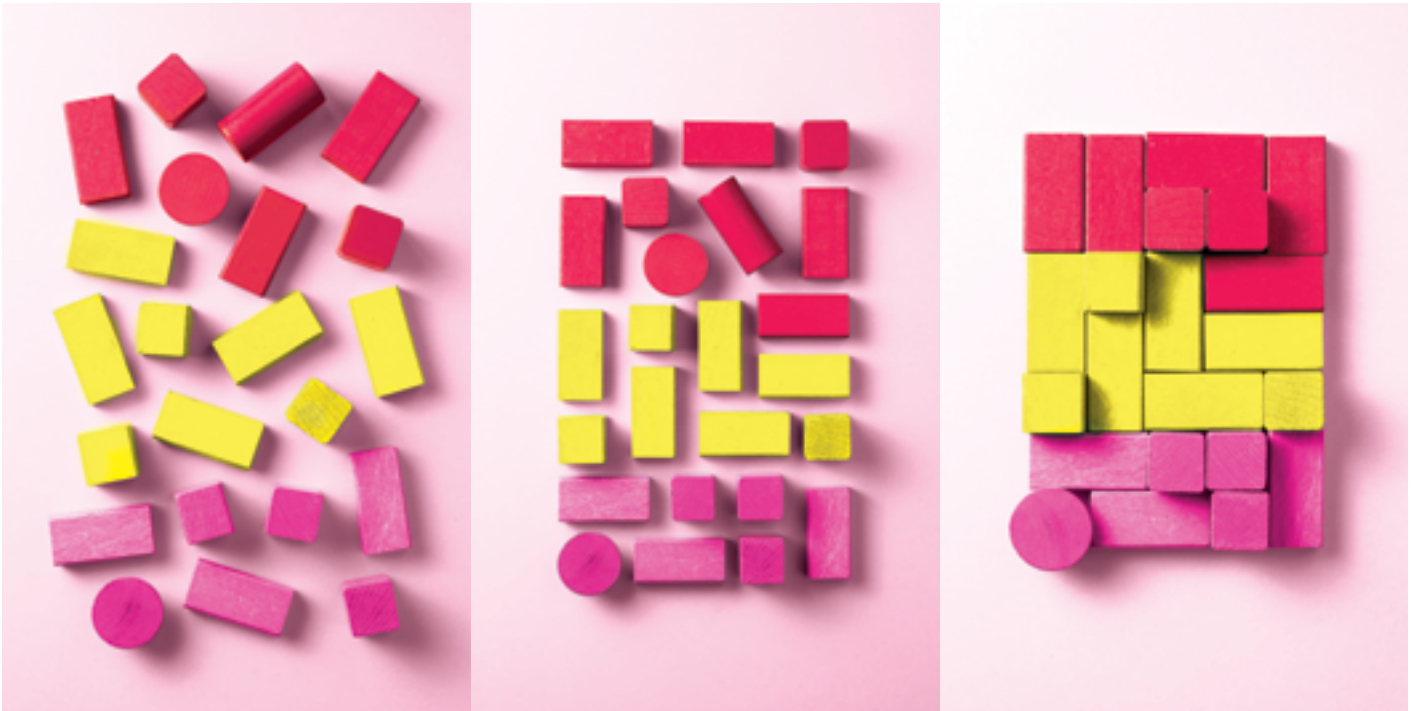
Annual global infrastructure deals, 2009 - 2018



had a significant impact on the activities of the Alternative Investment Funds (AIFs). In this regard, the traditional qualification whereby AIFs were funds investing in alternative strategies reserved to qualified investors, changed into all funds which fall outside the Undertaking for Collective Investment in Transferable Securities (UCITS) regime.

One of the most important features of the AIFMD is the possibility for AIFs to be marketed to professional investors under an EU passport. This depends on whether they are managed by fund managers authorized under the AIFMD and located within any EU Member State, without the need to negotiate each local regime. ➔

1. Preqin Alternatives 2019 Report
 2. Preqin Alternatives 2019 Report



There is also the key question of where to establish their operational footprint in a post—Brexit world with several jurisdictions introducing internal reforms to attract these nomadic fund managers.

This has led to the request from investors and fund managers for further regulation, which has affected how pooling vehicles and holding platforms are organized. There is also the key question of where to establish their operational footprint in a post—Brexit world with several jurisdictions introducing internal reforms to attract these nomadic fund managers.

Even though the AIFMD was issued as part of an increased push for investor protection by the EU and set standards for marketing when fundraising, remuneration policies set up, risk monitoring, reporting and accountability, there is also a convergence between the AIFMD and global tax trends in setting adequate substance standards and minimum level of operational activity.

Traditionally the decision on where to establish an AIFM was primarily driven by regulatory considerations (in order to benefit from the AIFMD Passport), with portfolio and risk management being performed or supervised in the jurisdiction of the investor pooling vehicle. However, having the AIF and the master holding platform (pooling all the investments) in the

same jurisdiction provides an opportunity to align regulatory and tax substance demonstrating genuine business purpose for setting up an active investment platform. Going forwards, we would expect to see an increase in the number of single jurisdiction funds structures.

Evolving tax landscape

In response to the base erosion and profit-shifting report (BEPS) promoted by the OECD, the European Commission presented an anti-tax avoidance package on 28 January 2016. Following numerous discussions and revisions, the final version of the Anti-Tax Avoidance Directive (ATAD) has now been published in the Official Journal of the European Union. The general deadline for EU Member States to transpose the text into national law was 31 December 2018, with provisions applying as of 1 January 2019 (with some exceptions).

While three of the five provisions introduced seek to implement the BEPS measures, the remaining two—the general anti-abuse rule and exit taxations rules—represent the EU’s aim of addressing tax avoidance practices.

For some of the measures introduced by the ATAD, EU Member States have options on how to transpose them into their national law. Ergo, there are some differences from EU Member State to EU Member State.

Nevertheless, the provisions of the ATAD will apply to all taxpayers that are subject to corporate tax in one or more EU Member States and will affect new investments, as well as existing structures which have been previously set-up.

CFC rule

The purpose of the controlled foreign company rule (CFC) is to reallocate undistributed income (which would not have been taxed or exempt in parent jurisdiction) of a 50 percent owned direct/indirect subsidiary or permanent establishment, to the jurisdiction of the controlling entity under certain conditions.

Interest limitation

The purpose here is to introduce limitation to the tax deductibility of any “exceeding borrowing costs” to a percentage of the

taxpayer’s tax-based EBITDA. Carve-outs are available, namely for AIF vehicles and long-term infrastructure projects which provide, upgrade, operate and/or maintain a large-scale asset (that is considered to be in the general public interest by a Member State) where the operator, borrowing costs, assets and income are all within the European Union. However, these carve-outs are expected to be difficult to apply on a practical basis.

Anti-hybrid rules

The objective of anti-hybrid rules is to prohibit the deductibility of expenses incurred within the context of EU transactions/structures whereby the differences in the legal characterization of a financial instrument or entity result in a double deduction or a deduction without inclusion.

On 1 January 2020, ATAD II is expected to become effective, which extends the anti-hybrid rules to entities and to non-EU transactions/structures. This is possibly one of the most impactful changes in recent years from a fund structuring perspective.

[...] an upfront holistic view as to all these matters is something highly recommended for the purposes of fund structuring strategy.

MLI

In addition to the points surrounding ATAD, on 7 June 2017, 68 jurisdictions signed the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (the MLI). One of the main purposes of the MLI (alongside others of an equally relevant nature that go beyond the reduced scope of this article) is to allow the minimum standard for the prevention of treaty abuse (the Principal Purpose Test or “PPT”). This is to be introduced in existing double tax treaties without the need for each jurisdiction to renegotiate each treaty individually.

To understand whether the MLI will impact any specific existing or future investment the asset managers will now need to consider whether the implemented structure relies on domestic legislation or on double tax treaties and in case of the latter, which options were followed by each jurisdiction. This analysis is of particular relevance on the payment of interest and dividends throughout the investment holding period and on non-resident capital gains upon an exit.

The evolving tax landscape also supports a move towards single jurisdiction fund structures established in a place where genuine operational activities exist.

Carried interest

Carried interest is a share of the profit for the manager of a fund on the gain realized on the exit of the investments. ➔



It is a key incentive for the managers to realize the best and quickest exit possible, thus aligning the interest of the investors with those of the managers.

The calculation of carried interest is set out in the fund formation documents (prospectus or Limited Partnership Agreement) and is typically set as a fixed percentage of the fund's net gains after the investors have been repaid of their drawn down commitments and preferred return (hurdle rate).

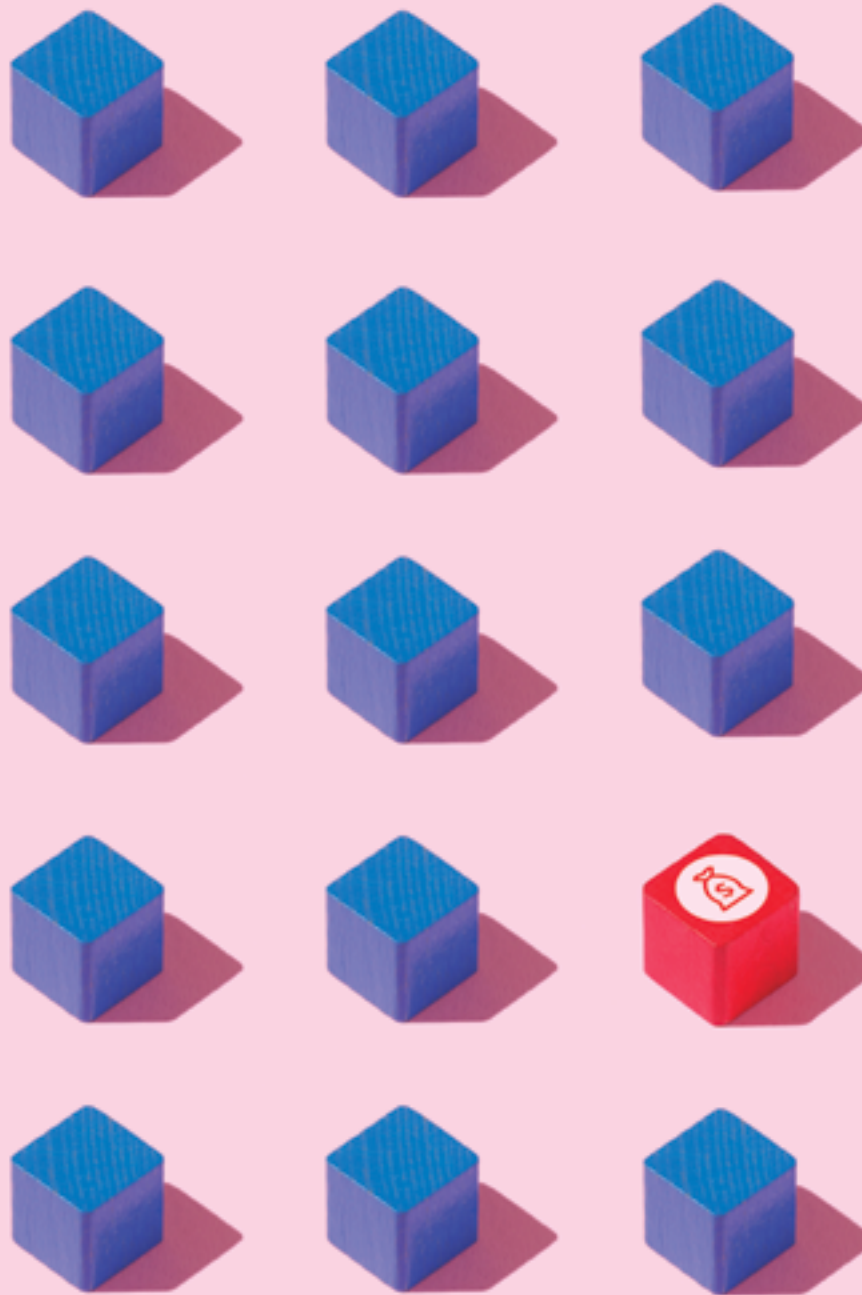
As such, depending on how the carry is designed and structured, it may be impacted by the changing tax landscape. This namely refers to the cases where the carry has a tax treatment at the level of the carry holders, which differs from the tax treatment at the level of the carry vehicle.

Indeed, with tax reforms it is becoming increasingly difficult to preserve the characteristics of returns on underlying assets in the hands of the carry holders with certain fund vehicles lending themselves to this better than others.

The importance of fund structuring

What we have outlined here may mean that the entire infrastructure fund industry will see their investments impacted. Therefore, they may need to change their pre-established holding platforms and pooling vehicles when considering new fund raising, regardless if they have EU investors, US investors, pension funds, sovereign funds, insurance companies or high net worth individuals.

The impact is certainly not solely at the level of the target jurisdictions. GPs need to map their investor base with a higher level of detail, analyze whether the vehicles used by each investor hamper the tax status of the investment platform as a whole, and work together with the investors and their advisors in order to determine the most suitable legal form for each pooling vehicle.



The evolving tax landscape also supports a move towards single jurisdiction fund structures established in a place where genuine operational activities exist.



We have summarized some of the questions that should be asked when setting-up the fund pooling vehicles:

What is the cornerstone investors' tax profile in their domestic jurisdiction (EU vs. US vs. other countries, pension fund vs. insurance company vs. sovereign fund, taxable vs. tax exempt, etc.)?

Depending on how income is picked-up at the level of each investor, this may influence interest deductibility in the target jurisdictions and/or at the level of the investor pooling vehicle (under ATAD I and ATAD II).

How do the cornerstone investors regard the investor pooling vehicle from a tax perspective (opaque vs. transparent) and the financing instruments issued by the pooling vehicle (equity vs. debt)?

Depending on the tax treatment of the fund vehicle and of the issued financing instruments at the level of each investor and of each target, this may have an impact on interest deductibility in the target jurisdictions and/or at the level of the investor pooling vehicle (under ATAD I and ATAD II).

Does the fund pooling vehicle and holding platform have an adequate level of substance?

Depending on whether the holding platform has the adequate amount of substance from a target jurisdiction perspective, each jurisdiction may disallow the application of the double tax treaty and levy WHT at domestic rates. This is of particular relevance in cash models where the WHT reduction or exemption on dividends and interest, as well as the capital gains tax exemptions, rely on the application of double tax treaties.

Is the carry structure sustainable or is it treated differently at the level of the fund pooling vehicle, the carry holders and of the carry vehicles?

Depending on whether there is a mismatch on how these structures are regarded, this could limit the deductibility of interest at the level of the fund pooling vehicle and/or the carry vehicles. In addition, the specific waterfall of profit attribution in this instance may be affected by the latter considerations.

Hence, an upfront holistic view as to all these matters is something highly recommended for the purposes of fund structuring strategy. ●

Take the wheel

How CRE can prepare for the implications of driverless vehicles

Surabhi Kejriwal

Real estate research leader

Deloitte



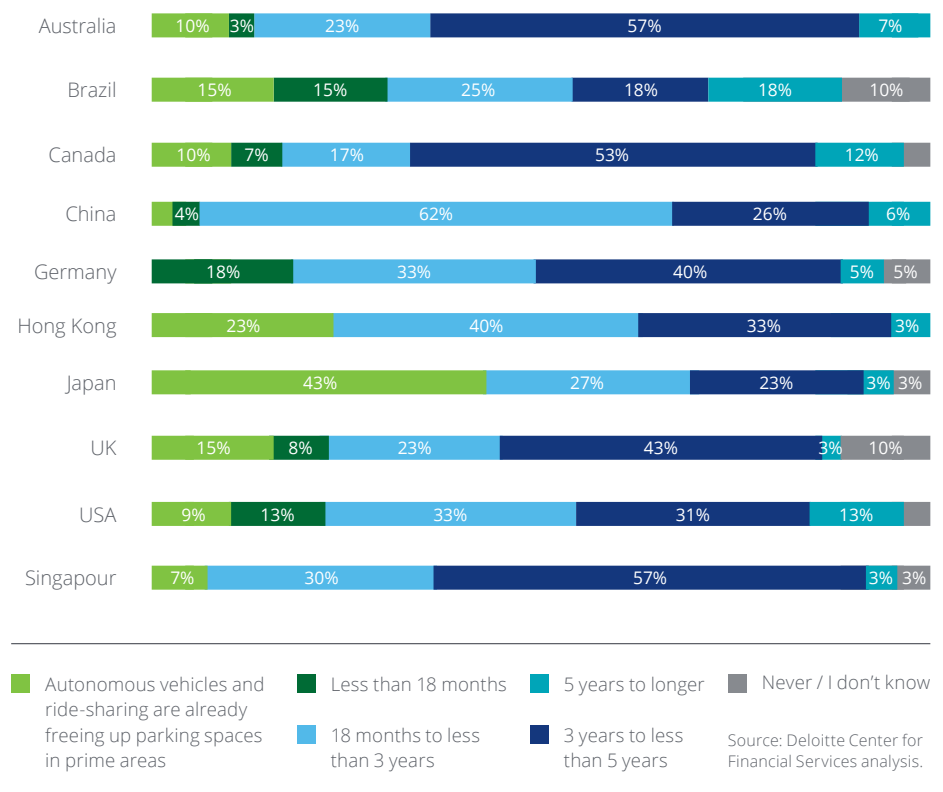
What are the potential impacts of driverless cars and ride-sharing on commercial real estate properties? Are commercial real estate (CRE) investors prepared? Recent results from a global Deloitte Center for Financial Services survey suggest that potentially high to significant impacts on industrial, office, and retail properties could be in store. Despite these findings, there are actions that CRE owners and operators can take to prepare and respond to the evolving environment.

There is tremendous buzz around the impact of driverless vehicles and ride-sharing on parking spaces—and therefore, the potential for significant development opportunities. Our recent global survey of 500 institutional investors revealed that nearly one-quarter of the respondents expect parking space to free-up and create development opportunities for CRE companies over the next 18 months. Another third said they anticipate this phenomenon to take place 18 months to three years from now. Interestingly, a relatively higher proportion of investor respondents from Japan, China, and Hong Kong anticipate the impact to take place within the next three years (see figure 1).

Along with parking space, sidewalks will likely be freer as these new mobility options reduce the need for curbside parking and wide streets, due to more efficient management of auto traffic. Consequently, there is likely to be a shift in the urban landscape as the freed-up space can be repurposed for other use. As a commercial real estate owner/operator, perhaps you are assessing the potential impact of driverless cars and ride-sharing on your property portfolio. Driverless cars will affect demand, supply, and valuations of CRE properties.

At the property level, more than two-thirds of our surveyed sample globally said they expect a high to significant impact on industrial property, and almost 64 percent anticipate a high to significant impact on office and retail properties.

Figure 1: Expectations of autonomous vehicles creating development opportunities



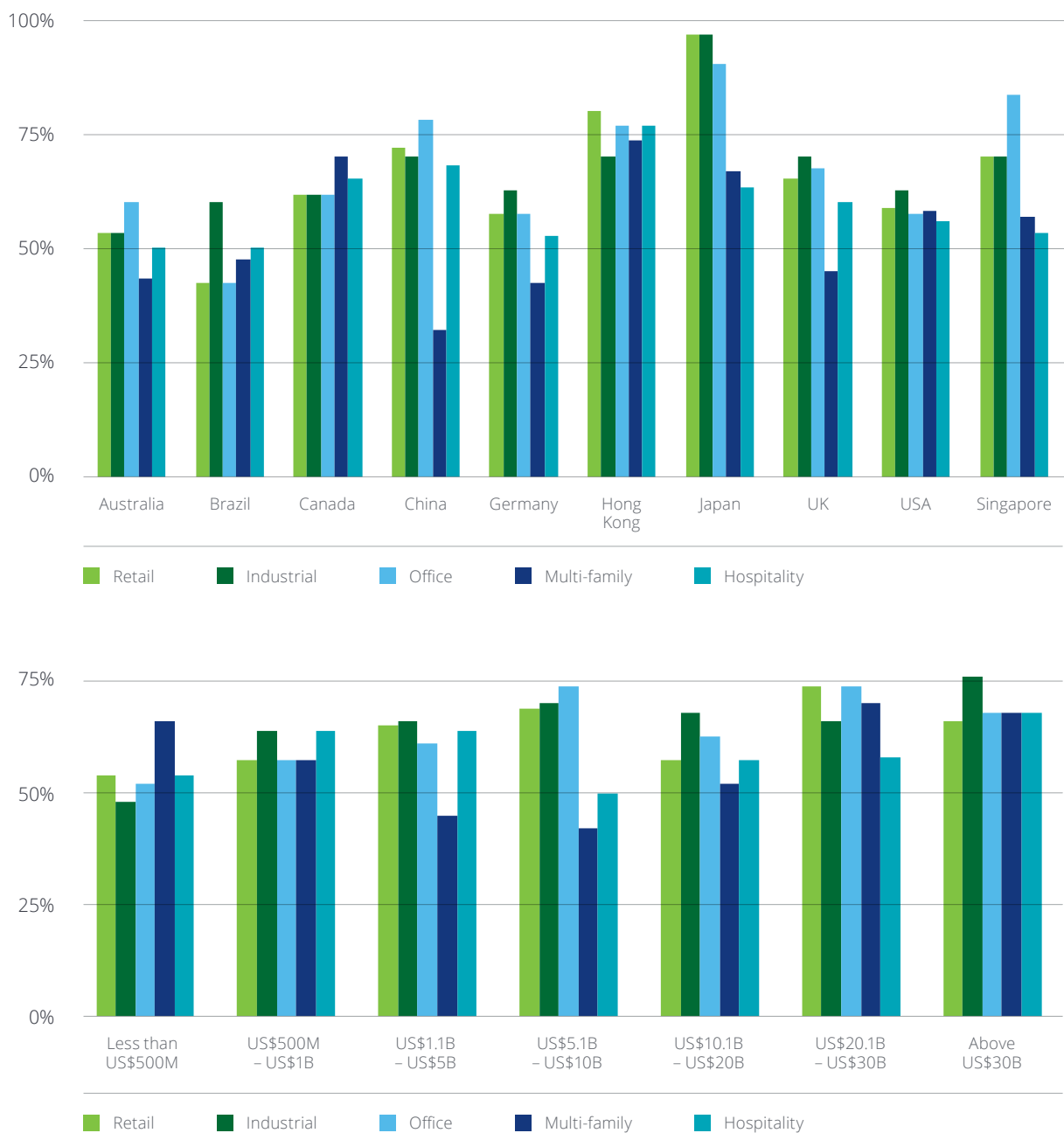
Among the various investor categories, sovereign wealth funds expect a significant impact from autonomous vehicles and ride-sharing across a majority of property types. On the other hand, a relatively lower proportion of real estate investment trusts (REITs) said they expect a significant impact from these trends. Slicing the survey results by investors' assets under management (AuM) uncovered that more

than 70 percent of respondents with US\$20billion to US\$30billion anticipate a significant impact of these trends on retail, office, and multi-family spaces, whereas more than three-quarters of those with US\$30billion-plus AuM expect a significant impact on industrial properties (see figure 2). ➔

Wider use of driverless vehicles will change location dynamics of real estate.

Unlike the past, some urban planners have started deprioritizing the car while planning community reforms.¹ For instance, Minneapolis reduced parking requirements for multi-family properties in select parts of town². In another example, Santa Monica, California has done away with minimum parking requirements for new downtown developments³.

Figure 2: Expectations of autonomous vehicles influencing properties



Source: Deloitte Center for Financial Services analysis.

Source: Deloitte Center for Financial Services analysis.

1. Jeffrey Spivak, "People Over Parking: Planners are reevaluating parking requirements for affordable housing", Planning magazine, October 2018.
 2. Ibid.
 3. Ibid.

As a CRE owner/operator, do you consider the shifting landscape a threat or an opportunity? How are you factoring in the impact of driverless vehicles and ride-sharing in portfolio management and (re) development of the built space?

Considerations for CRE owners and operators

CRE owners/operators might consider the following to prepare and respond to this evolving ecosystem:

- **Use analytics to evaluate property valuations and location:** Wider use of driverless vehicles will change location dynamics of real estate. Given the fluidity of the ecosystem, CRE owners may find it challenging to evaluate the existing portfolio mix and narrow down new investment options. They will want to explore a broader set of locations. Using analytics enables CRE owners to make efficient and informed decisions. Increased use of technologies such as the Internet of Things (IoT), geospatial technology sophisticated satellite imagery, and social media provide a larger variety of data at the location and property level. As a case in point, more than 40 percent of our survey respondents said they plan to somewhat increase use of data

analytics over the next 18 months, and 30 percent plan to significantly increase its use. Respondents also noted that they are complementing traditional data sources with those non-traditional ones listed here.

- **Human-centered approach to planning:** While CRE companies are likely to benefit from using technology in their business, they should also ensure they are putting the occupier front-and-center in their planning and development process. Driverless vehicles will likely add another dimension to occupiers' "live, work, play" preferences. Owners will potentially want to gain an in-depth understanding at the planning stage itself. Here too, they can consider using analytics to garner sophisticated insights about occupier preferences.
- **Flexible and adaptable designs:** One cannot deny that the constant evolution of driverless vehicles, ride-sharing options, and technology in general makes it difficult to develop long-term plans. However, CRE companies can prepare for uncertainty by increasing their focus on mixed-use developments and creating flexible spaces that can be modeled for different uses. They may also attract

more investor capital, as 54 percent of the survey respondents said they aim to invest in mixed-use properties and flexible spaces, and 44 percent plan to increase these investments, with the intention of diversifying their portfolios.

In summary, the automobile industry has a strong link with the CRE industry. Unlike the past, the technology-induced ecosystem inter-connectivity is likely to result in a relatively faster and larger impact from ride-sharing and self-driving cars. It is becoming increasingly important for companies to change their mindset and be agile in responding to the ecosystem developments.

To learn more about investor preferences with respect to CRE investments and approaches to enhancing agility, please read our 2019 CRE Outlook: Agility is key to winning in the digital era. ●

Interested in further reading on the topic? A detailed report is available at

 <https://deloitte.tt/2Ozbslj>

Among the various investor categories, sovereign wealth funds expect a significant impact from autonomous vehicles and ride-sharing across a majority of property types.



Recent thought leadership

Interested in further reading on real estate? Take a look at Deloitte's recent thought leadership.



Real estate predictions 2019

Deloitte's Real Estate industry predictions discuss the 2019 industry trends and topics that will impact your business, including:

- Data driven business models will change the real estate industry
- Digital twins
- The future of industrial real estate
- Circularity
- Cyber security #1
- Cyber security #2
- Blockchain
- Strategic approach to real estate management
- Future of work
- Future of commercial real estate
- Transit oriented development and land value capture

<https://deloi.tt/2OrPiRK>



Expectations and market realities in real estate 2019—unchartered territory

Co-produced with the National Association of Realtors and RERC LLC/Situs, this report focuses on the overall US commercial real estate market, the economy, and the capital and property markets. This hopes to provide readers' perspectives for 2019, including insights on property types by market: office, industrial, retail, apartment, and hotel.

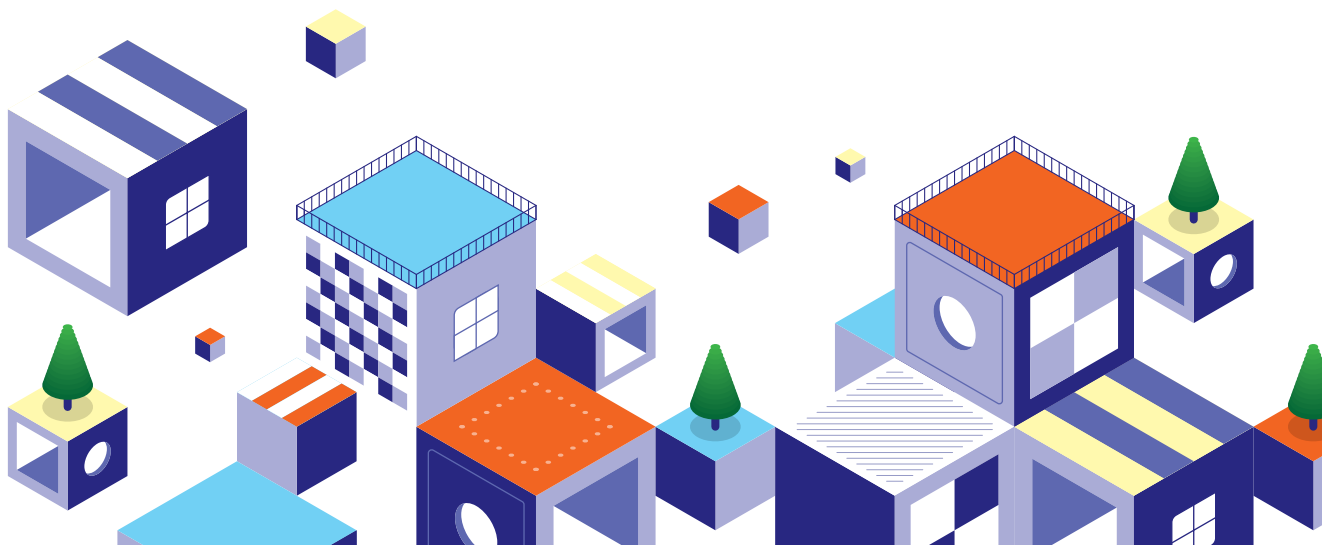
<https://deloi.tt/2N7pmdt>



Grand Paris office crane survey

The building of new offices in Grand Paris reached a new peak by exceeding two million square meters under construction in 2018. This level of construction is 40 percent higher than the average number of sites under construction in the last 15 years. The Grand Paris landscape is therefore marked by the amount of cranes on the horizon more than ever, while the tendency leans towards a rebalance between the North, East and West of Paris.

<https://deloi.tt/2FH1xXN>





Deloitte Africa: Construction Trends 2018

The impact of infrastructure cannot be overemphasized, and the challenges facing governments to provide and enable private sector development and involvement in infrastructure is still important. Deloitte Africa's Construction Trends 2018 report looks at the infrastructure gap in Africa and how governments have been spending on projects to address this discrepancy. Projects are analyzed across Africa and per region.

Areas of analysis include ownership and the significant roles played by the African governments. The report also focuses on the role of China in Africa and what the Belt and Road Initiative (BRI) means, contributes, and promises for many African governments.

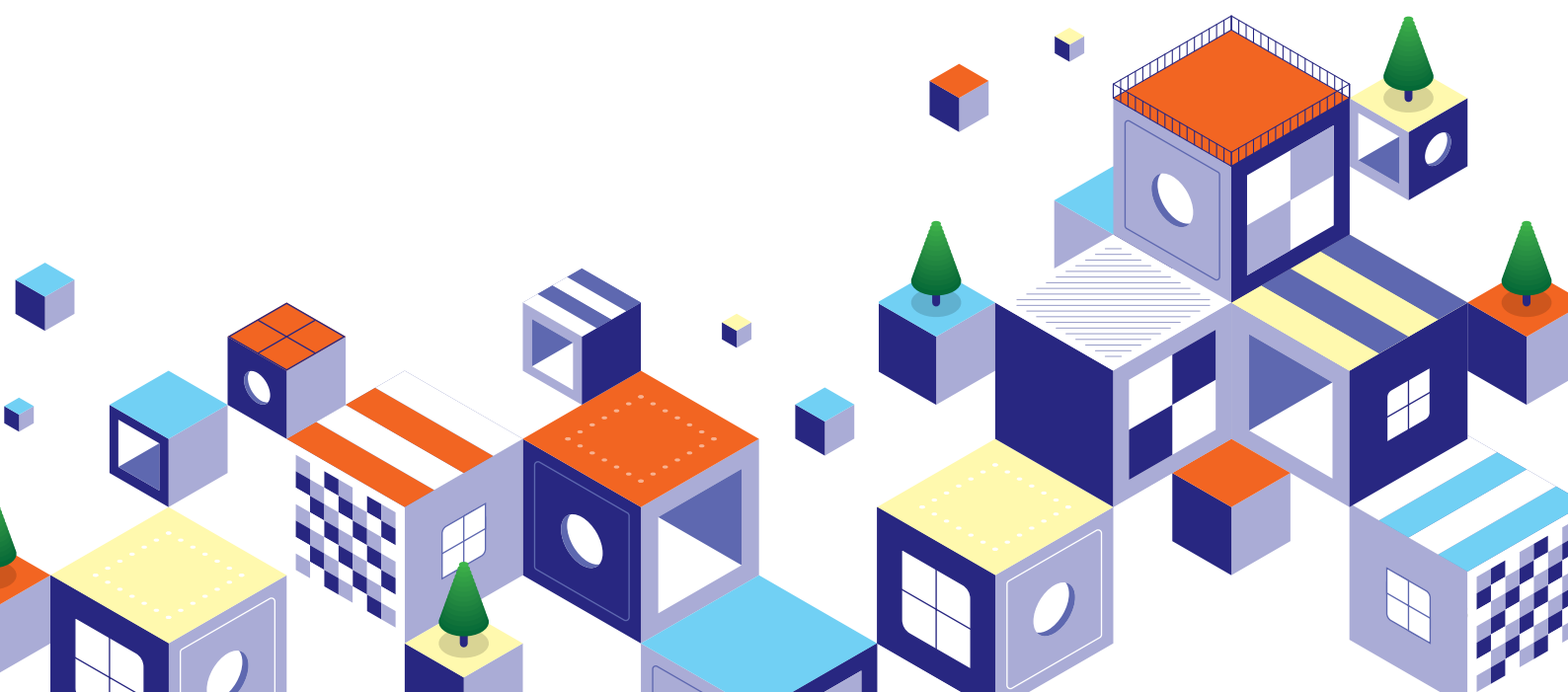
<https://deloi.tt/2M8RUTz>



Deloitte Insights article: If you want to prosper, consider building roads: China's role in African infrastructure and capital projects

China's Belt and Road, and Silk Road initiatives are creating fresh waves of road, rail, port, and energy investment in Africa, making the continent more connected both internally and with the outside world.

<https://deloi.tt/2urUawS>



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