Infrastructure Investments and Development: Two sides of a coin?

Linda Zeilina, Special Adviser to the Managing Director, Re-Define

ABSTRACT

This paper examines the conclusion by the Norwegian Ministry of Finance not to invest in unlisted infrastructure. It also explores the advantages and disadvantages related to the developmental effects of the SPU increasing its real estate investments, but not investing in infrastructure.

Report Commissioned by Forum for Utvikling og Miljø

Contents

Abbreviations	3
Introduction: The misguided decision not to invest in infrastructure	4
Background: world infrastructure needs at a glance	5
Other Sovereign Wealth Funds	6
Why the reasoning about risks is not all it appears	8
The Fund's ever-larger investments in listed companies and real estate	9
Why investing in infrastructure would result in better returns and greater development impact	10
Development impact and better returns	11
Key takeaways	13
References	16
About Re-Define and the author	17

Abbreviations

AIIB Asian Infrastructure Investment Bank

DFI Development Finance Institution

ESG Environmental, Social and Corporate Governance

GIF Global Infrastructure Facility

GDP Gross Domestic Product

IMF International Monetary Fund

IFC International Finance Corporation

OECD Organisation for Economic Co-operation and Development

SWF Sovereign Wealth Fund

Introduction: The misguided decision not to invest in infrastructure

The government decision announced on the 5th of April this year not to invest in unlisted infrastructure came as a surprise to many. While ever more long-term investors are recognising the promising returns from both listed and unlisted infrastructure investments, the Ministry of Finance had delayed the Norwegian Sovereign Wealth Fund's (from now on, Fund) investments in such assets.

This demonstrates not only a missed opportunity to profit from higher long-term returns, but it also misses out on significantly contributing to international development and economic growth. It is widely acknowledged that improvements in both economic and social infrastructure foster a country's competitiveness and boosts its GDP, also improving the economic growth outlook. While certain social aspects of infrastructure development are harder to quantify, improved healthcare and education help economic development and enhances people's quality of life.

NBIM, following suggestions from a report by external experts, had recommended last December that the Fund should be allowed to expand its investments beyond the current portfolio of equities, bonds and property into new categories. NBIM has repeatedly recognised the potential of both listed and unlisted infrastructure investments, and the growing importance of such assets both for risk diversification and for ensuring stable future returns.

The decision to invest in unlisted infrastructure could have been the first largest change in the Fund's investment strategy since 2010. However, this change did not happen, despite a strong intellectual and economic case in favour of this.

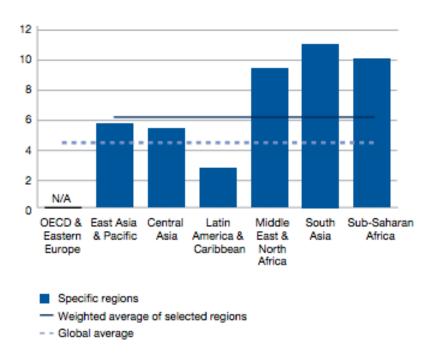
Moreover, infrastructure investments, offer a win-win scenario by also having a positive development impact on local economies, provided the infrastructure projects are designed well. This is a good match for the Fund as a self-proclaimed responsible investor. For the sake of next generations, investing in sustainable growth is one of the most responsible investment decisions.

The world is changing, and so are the investment and development needs and landscapes. The government needs to reconsider its decision against investing in infrastructure, as this might harm its returns in the long run.

Background: world infrastructure needs at a glance

The annual global infrastructure gap (the difference that exists between investment needs and actual spending) is currently estimated to be a staggering US \$1 trillion or 1.25% of global GDP. It has been projected by McKinsey that \$57tn is needed globally by 2030 to finance energy, water, transportation and social projects¹. (see graphic 1).





Sources: WEF Strategic Infrastructure – Steps to prioritize and Deliver Infrastructure Effectively and Efficiently (Global average based on the figure in Appendix 2 and the figures for the specific regions are based on African Development Bank, Asian Development Bank, et al. Supporting Infrastructure Development in Low- Income Countries: Submission to the G20 by the MDB Working Group on Infrastructure. Interim Report. June 2011, p. 2.).

A wide range of studies offer arguments and evidence that in the medium and longer-term, infrastructure investment plays a key role in improving a country's economic growth, while also offering economic returns. Rough estimates suggest that each US dollar spent on infrastructure can generate an economic return up to $25\%^2$.

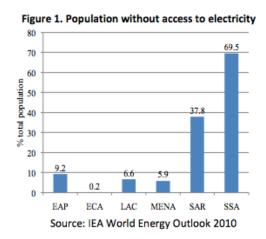
Moreover, improving both economic and social infrastructure results in increased social benefits, including better health outcomes and improved access to services for

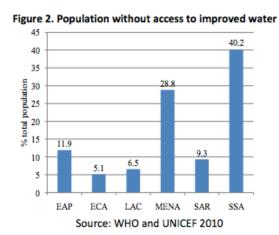
¹ McKinsey Global Institute 2013.

² PricewaterhouseCoopers 2014.

remote communities³. Developing economies are still facing similar challenges as they were in 2010 (see graphic 2), which affect the quality of life and the countries' competitiveness and job creation potential.

Graphic 2: Populations without access to electricity or water





In light of the Paris Summit (COP21) agreements and overall rise in awareness of sustainability issues, green infrastructure investments offer particularly attractive prospects, as they would enable less developed economies to get on a more sustainable economic growth path in the long term. The Ministry of Finance and the Fund both acknowledge the rising importance of renewable energy investments and sustainability; however, the existing investment vehicles are deemed sufficient. In light of the huge investment gap, this assessment does not seem to be accurate. Unlisted green infrastructure investments could offer greater financial returns and development impacts than the already crowded landscape of listed ones. Due to the very long-term horizon of the Fund, the absence of any regular liabilities (unlike pension funds) and the very little need for liquidity, the Finance Ministry's concerns about liquidity are misplaced.

Moreover, the COP21 Intended Nationally Determined Contributions (INDCs) that countries will outline will influence the regulatory agendas, putting more emphasis on infrastructure that help countries meet the intended 2°C global warming goal. As the Fund's main source of income is the sale of oil, diversifying its portfolio towards green infrastructure would be prudent reducing risk and enhancing returns.

Other Sovereign Wealth Funds

It is important to note that political and regulatory risk has not held other similar investors back from investing in infrastructure. According to in-depth research from Aurium Capital Markets, more than 185 pension funds had investments in

_

³ World Economic Forum 2012.

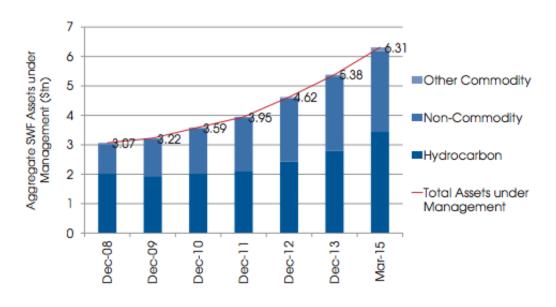
infrastructure, an increase from 136 in 2015⁴. The trend has been of increasing allocations to infrastructure investment, with 89% of sovereign wealth funds (SWFs) undertaking direct investment in infrastructure, while many also opting for using fund managers for such investments.

Notable funds investing in infrastructure include Abu Dhabi Investment Authority (with a 5% target allocation to infrastructure, coming to \$19bn), Indonesia's Government Investment Unit (80% of total assets allocated to infrastructure). China Investment Corporation and Abu Dhabi Investment Authority have been amongst the increasing number of SWFs moving capital away from established OECD countries to emerging markets.

Large infrastructure investments have been undertaken by many other funds too. In 2013 Temasek invested almost \$70m in waterways operator Hidrovias do Brasil alongside AIMCo and P2 Brazil Infrastructure Fund; the following year its sister fund GIC injected \$135 million into Agea Saneamento, the wastewater management unit of local sanitation company Grupo Equipav⁵.

Moreover, 78% of infrastructure investors stated in June 2014 that the performance of the infrastructure asset class met or exceeded their expectations over the year⁶. This shows the growing potential for returns from infrastructure investments even in shorter to medium term.

Graphic 3: Aggregate Sovereign Wealth Fund Assets under Management (\$tn), between 2008 and 2015



Source: Pregin, "The 2015 Pregin Sovereign Wealth Fund Review", 2015, page 1.

_

⁴ The Financial Times 2016.

⁵ ESADE 2014.

⁶ Pregin 2015.

Most importantly, a number of other sovereign wealth funds that currently invest both listed and unlisted infrastructure have considerably outperformed the Norwegian Fund and had greater returns on their investments at a time of low yields.

For Temasek, the Singapore state-owned fund, the annualised total shareholder returns were 16% since its inception in 1974⁷. Its investment portfolio is mainly focused on Asia⁸, and it has larger allocation to telecommunications, transportation and industrials than real estate and has enjoyed good returns on its investments in these sectors⁹.

It is important for the Fund to learn from best practice and to keep up with the changing investment landscapes, so better performance by similar entities should not be ignored.

Why the reasoning about risks is not all it appears

Lack of data & transparency

There is a growing amount of data on infrastructure needs, with institutions such as the OECD, World Economic Forum (WEF) and G20 working on helping governments and other stakeholders to create appropriate infrastructure projects and financing. This is resulting in a growing amount of accessible data and increased transparency.

Lack of data or transparency has not held other SWFs back from investing in infrastructure projects, with the total amount invested growing over the last decade.

Political and regulatory risk

Political and regulatory risk remains a concern for all investors in infrastructure. However, such risks can be very well mitigated by proper due diligence on a country-to-country basis. Steps to create some in-house capacity (within the Ministry of Finance or the Fund itself) for assessing investment opportunities in infrastructure would allow to assess the benefits of infrastructure investments, and also enable the Fund to gradually allocate capital to infrastructure assets.

In order to mitigate risks and gain access to more market intelligence, the Fund can also partner with development banks and explore co-investment partnerships with specialised institutions such as the IFC's Asset Management Company, so that it can improve its risk assessment and channel its investments in developing economies.

⁷ Temasek 2015a.

⁸ Temasek,2015b

⁹ Temasek 2015c.

While some emerging markets might have political and regulatory risks, such risks also exist in the developed economies in which the Fund currently heavily invests. With changing political landscapes across Europe (Brexit risk potentially affecting asset values in the UK) and other OECD economies facing challenges of ageing societies and welfare states under strain, emerging markets offer diversification that could mitigate major volatility in the OECD economies.

Notably, political and regulatory risk is genuinely diversifiable. Changes to water privatization laws in Bolivia are not correlated with the terms of mining concessions in Indonesia or the tariffs on Indian toll roads. With its large size, the Fund can invest in sectors and countries varied enough to diversify away most political and regulatory risk.

The Fund's ever-larger investments in listed companies and real estate

The Fund has increased its listed real estate investments, which is found to be in line with other sovereign wealth funds. This is an attempt to catch up after having been late in joining other similar investors in investing in this sector.

The current plan outlines a target of USD 41.5bn to be invested in global property markets, which means investing USD 16bn into real estate in 2016 alone, and increasing staff numbers working on real estate investments.

Globally, approximately two thirds of sovereign wealth funds have invested in real estate, with the property market in Asia seeing particular saturation. This is becoming an increasingly crowded investment space, driving up prices and making it ever harder to find new lucrative investment opportunities. Also, it is an asset class that is exposed to inflated asset prices and potential property bubbles, as important expert bodies in organisations such as the IMF and the BIS have repeatedly pointed out.

The decision to target "major cities in key markets" means that the Fund will predominantly invest in real estate in large cities in developed economies, a market that is already saturated and getting increasingly more so.

After the initial new construction period of new buildings, the investments will contribute very little to the longer-term development of the local economies. While initially such investments create jobs in construction and a couple of other sectors, the contribution to the real economy is much smaller in the longer-term when compared to infrastructure investments.

Why investing in infrastructure would result in better returns and greater development impact

In the current climate of low returns, infrastructure can offer attractive returns, especially in the longer term. It is deemed to be the most promising of all alternative asset classes, with green infrastructure investments seen as particularly appealing. A major study carried out by Preqin showed that 63% of institutional investors were planning to invest in unlisted infrastructure funds, while also expecting an overall increase in allocations to infrastructure in the long term¹⁰.

Thus it is very likely that the Fund will have to invest in infrastructure eventually - due the need to further diversify its investment portfolio and the increasingly crowded investment landscape in real estate, bonds and equities.

However, the longer the Fund delays investing in infrastructure, the harder it will be to find the best investment opportunities. The Fund risks to arrive late to the table, thus losing any advantages it could have had as an early-mover.

This would also mean the Fund would have foregone all the possible returns it could have accrued by investing in infrastructure earlier rather than later.

Given the current oil prices and oil prices expectations, it is reasonable to assume that for the foreseeable future, the fund will not be getting fresh injections of the money from the government (from oil production). Hence, how much money the government can withdraw depends on how much money the fund can generate.

Consequently, delayed investment in unlisted infrastructure will impact on how much of the Fund will be available for the government to withdraw from in case of prolonged lower prices of oil and other possible economic difficulty ahead.

With the present strategy, it is impossible to have a long-term return on investment anywhere close to the Fund's target of 4 percent. Given the size of the Fund, poor returns mean the government may get a 2 - 4 percent of GDP lower contribution from the Fund over the long term.

With such an investment strategy, the Norwegian state may be forced to undertake welfare cuts and lower domestic investment domestically, exactly at a time when Norwegian society is starting to age, and when the economy needs more support to diversify away from oil and gas.

The Fund did set up a special unit focused on property (The Norges Bank Real Estate Management). The Ministry of Finance should allow the NBIM to launch a similar dedicated unit for unlisted infrastructure investments and build capacity in the area as soon as possible, so that the Fund can start investing in infrastructure.

-

¹⁰ Pregin 2013, page 2.

Development impact and better returns

Especially in the last decade, it has become more evident that profit and positive developmental impact do not need to be mutually exclusive¹¹. The rise of impact investing and environmental, social and corporate governance (ESG) concerns are transforming the investment landscape.

Currently, the Fund prioritises investments in government and corporate bonds, fixed income securities and real estate – all liquid assets, most of which are also exposed to market volatility.

In contrast, listed and unlisted infrastructure matches the profile of the Fund as a long-term investor able to afford taking a long-term outlook to ride out market volatilities and crises. Infrastructure assets offer relatively stable, inflation-protected and predictable returns over the longer-term. When compared to equity investments over the long-term, infrastructure assets show lower level of price volatility and thus can provide a steady return throughout the economic / investment cycle.

Inclusion of unlisted infrastructure investments in particular would result in better diversification, as the returns from such assets show low correlation to the returns of other asset classes¹². This would mean an opportunity for the Fund to materially improve a portfolio's risk-adjusted return.

Since there is a wide variation in the individual infrastructure projects available for investment, this also would enable the Fund to tailor its exposure to the sector by selecting a variety of infrastructure assets and hence mitigate some of the risks.

Importantly, as recently noted in an IMF working paper¹³, long-term investors massively underestimate the relatively high returns on infrastructure-related investments. Short-term outlooks tend to influence investment decisions also because of the quarterly reporting of results, to which infrastructure investments might not be suitable, as returns would materialise over a longer time period.

Investing in this particular asset class has the important additional benefit of stimulating the local economies, while developing their internal structures and their competitiveness in a less intrusive way. As highlighted by the vice-president of the African Development Bank Mthuli Ncube, 1% of GDP invested in transport and communications on a sustained basis can increase a country's GDP per capita growth rate by $0.6\%^{14}$.

The demographic and economic outlook for emerging markets remains positive, showing that this is where most of the future economic growth will occur. The infrastructure investments needs amount to 9% of GDP in emerging economies and

¹¹ Crossley, R. et al., Oxfam 2010.

¹² "Infrastructure Investing: A Portfolio Diversifier with Stable Cash Yields". J.P. Morgan Asset Management.

¹³ Arezki, R. et al. 2016, p. 5.

¹⁴ Ncube, World Economic Forum Blog, 2013.

up to 15% of GDP in some low income economies¹⁵. Investment in both social and economic infrastructure¹⁶ would yield significant development benefits by having a larger societal and economic impact than in developed economies, while also offering the Fund a new revenue stream.

Investing in unlisted infrastructure also allows benefiting from greater returns due to less crowded investor landscape. Since other long-term investors are also looking to diversify their portfolios and find new returns in a low yield environment, the investments in listed infrastructure have grown. Since a relatively small portion of infrastructure assets are listed in the less developed economies, once they are listed, they are able to easily attract investment. This means no lack of investors.

The Fund should make sure that the sector allocation of its investments are coordinated with its overall development impact, thus prioritising sectors such as infrastructure, agricultural businesses and telecommunications. The amount of the Fund's investable capital provides it with considerable leverage when it comes to influencing the market actors – this enables the Fund to request certain standards to qualify for its investments, and thus mitigate the reputation risks that the Ministry of Finance is worried about.

In order to further maximise the Fund's development impact, in the future the Fund should prioritise listed and unlisted infrastructure investments with a geographic focus on South Asia and Sub-Saharan Africa¹⁷ (two regions with largest funding shortfalls, but also with the highest growth potential and the most pressing development needs). In Sub-Saharan Africa in particular, fast-growing economy, rapid urbanization and an increasing and more-affluent population means that infrastructure investments can result in substantial positive development impact, combined with good returns.

Such a strategy would not only ensure more socially and environmentally sustainable outcomes, but it can also mitigate reputational and financial risks. Moreover, partnering with development finance institutions (DFI)s would also have a more direct impact on job creation, which would help poverty alleviation, social mobility and result in an overall positive development impact.

_

¹⁵ World Economic Forum 2010 and 2012.

¹⁶ Social infrastructure encompasses schools, hospitals, universities, public housing, prisons and other government buildings.

Economic infrastructure includes highways, water and sewage facilities, energy distribution and telecommunication networks among others.

¹⁷ Kapoor, S., Re-Define 2013.

Key takeaways

- Investing both in listed and unlisted infrastructure would allow the Fund to harvest an illiquidity premium and diversify its portfolio, due to lesser competition than in the case of real estate.
- Development of social and economic infrastructure could have a larger impact on the growth prospects and competitiveness of local economies than other policy tools or vehicles used, allowing countries to set their own priorities according to their needs.
- The current large and growing infrastructure needs that hinder emerging and low-income economy growth would be best addressed by the Fund's investments in unlisted infrastructure – something that is not feasible to the same extent for other institutions or initiatives.
- Investing in both listed and unlisted, as well as brownfield and greenfield infrastructure projects in both developed and low-income markets would allow the Fund to mitigate the risks of investing in unlisted infrastructure.
- In order to tackle the issue of limited expertise in unlisted infrastructure investments, the Fund is able to explore partnerships with Norfund or DFIs, and such institutions as the IFC and World Bank's Global Infrastructure Facility (GIF) and Asian Infrastructure Investment Bank (AIIB).
- Using the DFIs as external managers would help obtaining country-to-country specific expertise, which is key for unlisted infrastructure investments in emerging and developing economies.
- Partnering with DFIs would also mitigate reputational risks, as such entities operate with the dual goal of being profitable and promoting development, and thus pay attention to ESG concerns.
- The lack of data on unlisted infrastructure does not mean that this cannot be addressed by using due diligence, strategic selection and external expertise.
- Political and regulatory risks exist both in developed and developing countries

 having investments in a wider range of assets and geographies would help
 to mitigate the already existing and overlooked risks facing developed
 economies, such as demographic decline, changing political landscape and
 proximity to the technological frontier.
- Moreover, most political and regulatory risks can be diversified away they are not issues that are impossible to address.

- Investing in unlisted renewable energy projects and green infrastructure would allow the Fund to both get better returns and to invest in a growing sector, as countries will make an effort to meet their INDCs after the Paris Summit in 2015. This would also allow the Fund to mitigate its risks of large exposure to regulatory potential future changes and its remarkable exposure climate change risks.
- The Fund should start building up more expertise in both listed and unlisted infrastructure due to the growth of this asset class. It can follow the approach used to build up its in-house capacity for real estate investments – it would be advisable to create a dedicated arm for infrastructure.
- Investing in emerging and low income economies would also help the Fund to diversify by investing in a different shape of world economy, as it is now heavily invested in the current shape of world economy, in which developed economies still are predominant despite slowing growth.
- While the market share of listed and unlisted infrastructure may be a fraction
 of the global capital market at the moment, it is expected to grow in size and
 importance, especially with growing populations and commerce creating
 pressures for infrastructure projects to meet the increasing demand.
- Investments in unlisted and listed infrastructure would have the added benefit
 of generating direct, indirect, induced and second order growth-effect jobs¹⁸.
- Due to the Fund's intergenerational mandate, investments in financial, environmental and social sustainability are well suited to its role as a responsible investor, thus not investing in an asset class with direct development impact can be seen as irresponsible as the identified risks 1) have not held the Fund back from investing in other assets and 2) are not impossible to mitigate or address.
- Stable sources of funding (that could be offered by the Fund) are also key for sustainable development – developing and least developed countries are often left exposed to fluctuating commodity prices, interest rate changes due to monetary policies in developed economies – all of which can hamper their economic growth and prospects.
- Investments in real estate offer much smaller contribution to the development and growth of the local economies.

Indirect jobs: work created by the company's suppliers and distributors

Induced jobs: jobs resulting from direct and indirect rise of demand and purchasing power from the new workforce

¹⁸ *Direct jobs:* in a business or a company

Second order growth-effect jobs: jobs resulting from the removal of an obstacle to growth, such as lack of physical infrastructure (roads etc)

•	As it stands, the Fund is not fully taking advantage of its long-term horizon and ability to tolerate short-term losses in order to get longer-term profitability.

References

Arezki, R. et al., IMF Working Paper WP/16/18. (February 2016). "From Global Savings Glut to Financing Infrastructure: The Advent of Investment Platforms". Available from: http://www.imf.org/external/pubs/ft/wp/2016/wp1618.pdf

Crossley, R. et al., Oxfam. (2010). "Better Returns in a Better World: responsible Investment – overcoming the barriers and seeing the returns". Available from: http://policy-practice.oxfam.org.uk/publications/better-returns-in-a-better-world-responsible-investment-overcoming-the-barriers-118018

ESADE, KPMG & Invest in Spain, ed. Santiso, H. (2014). "Sovereign Wealth Funds 2014". Available from: http://itemsweb.esade.edu/wi/Prensa/SWF2014_ENG.pdf

J.P. Morgan Asset Management. (2009). "Infrastructure Investing: A Portfolio Diversifier with Stable Cash Yields".

Kapoor, S., Re-Define Discussion Paper. (2013). "Investing for the Future". Available from: http://re-define.org/sites/default/files/sites/default/files/images/OilfundFinal.pdf

McKinsey Global Institute (2013). *Infrastructure productivity: How to save \$1 trillion a year.* Available from:

http://www.mckinsey.com/insights/engineering_construction/infrastructure_productivity

Ncube, M. World Economic Forum Blog (13 May 2013). "Breaking Africa's infrastructure bottleneck". Available from: https://www.weforum.org/agenda/2013/05/breaking-africas-infrastructure-bottleneck/

Pregin (2015). "The 2015 Pregin Alternative Assets Performance Monitor".

Pregin (November 2013). "Changing Infrastructure Fund Terms and Condition".

PricewaterhouseCoopers LLP (2014). "Capital project and infrastructure spending: Outlook to 2025".

Available from: https://www.pwc.se/sv/offentlig-sektor/assets/capital-project-and-infrastructure-spending-outlook-to-2025.pdf

The Financial Times (7 February 2016). "Third more Pension Funds invest in Infrastructure". Available from: https://next.ft.com/content/b6744ff8-cc29-11e5-a8ef-ea66e967dd44

Temasek (2015a). "Portfolio Performance". Available from: http://www.temasek.com.sg/investorrelations/portfolioperformance

Temasek (2015b). "Geography". Available from: http://www.temasek.com.sg/portfolio/portfolio_highlights/geography

Temasek (2015c). *Sector*". Available from: http://www.temasek.com.sg/portfolio/portfolio_highlights/sector

World Economic Forum (2010). "Positive Infrastructure: A Framework for Revitalizing the Global Economy". Available from: http://www.weforum.org/pdf/ip/ec/Positive-Infrastructure-Report.pdf

World Economic Forum (2012). Strategic Infrastructure: Steps to Prioritize and Revitalize Infrastructure Effectively and Efficiently. Available from: http://www3.weforum.org/docs/WEF_IU_StrategicInfrastructure_Report_2012.pdf

About Re-Define

Re-Define is an independent international think tank specialising in financial and economic policy formulation. Re-Define offers advisory services for corporate entities, investors and other stakeholders on the economy and policy developments.

Re-Define brings together some of the brightest minds in the relevant fields to develop creative, yet pragmatic solutions to the most pressing public policy challenges of our times. The Re-Define team is led by Managing Director Sony Kapoor, an influential economist, financial sector expert and development practitioner.

About the Author

Linda Zeilina is Special Adviser to the Managing Director of Re-Define, and runs its Programme on the Future of Europe.

Linda has previously worked for the think tank ran by the European Youth Parliament (EYP) and Schwarzkopf Stiftung Junges Europa, and has presided over several large-scale EYP conferences Europe-wide. She has worked as an adviser and speechwriter for a number of prominent Latvian and international policymakers.

Linda has worked extensively on the Norwegian Sovereign Wealth Fund and its investment strategy, and has carried out research on stranded assets, and the risks this may present to long-term investors. She has also led projects looking at sustainability issues and groupthink in investment committees.

Linda is a graduate of the London School of Economics and alumnus of McGill University and the University of Glasgow.

Email: linda.zeilina@re-define.org