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Commentary

From Nuclear Waste, a New SWF Rises[1]

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Germany, of all unlikely contributors, has just added a new sovereign wealth fund to the global investor community — albeit one with an unprecedented mandate and funding model.

On December 15, 2016, the German Bundestag, the national Parliament, passed legislation for the reallocation of responsibilities for nuclear waste disposal, effectively creating a sovereign fund to address the future costs of safely disposing of radioactive materials generated by commercial nuclear energy production. The legislation came into effect last month, on June 16. At its core is a new investment vehicle, known as the "Fonds zur Finanzierung der kerntechnischen Entsorgung," best translated as the Nuclear Waste Disposal Fund (NWDF).

On July 3, the NWDF received €23.6 billion in cash from four energy companies that operate or hold stakes in nuclear power plants in Germany: EnBW, E.ON, RWE, and Vattenfall, as well as a public-services utility owned by the city of Munich, Stadtwerke München. In one brisk manoeuver, the companies have effectively offloaded their financial liabilities for the safe disposal and management of nuclear waste resulting from electricity generation at German nuclear power plants to the NWDF. The fund is, or should be, ready to start investing soon.

Covering the Costs of the Nuclear Phase-Out

The creation of the NWDF is the culmination of a decades-old, heated debate in Germany about nuclear power and the disposal of nuclear waste. The nuclear tragedy at Fukushima, Japan in 2011, when an earthquake and tsunami crippled nuclear reactors at the site, resulting in multiple meltdowns and the release of radioactive material, was a tipping point in this debate. It transformed the risk

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perception of the public and the ruling coalition government under Chancellor Merkel regarding nuclear power generation. In consequence, policymakers decided to phase out nuclear energy production in Germany by 2022. The phase-out includes the closure and dismantling of nuclear reactors, the packaging of nuclear waste in necessary containers for transportation, and the interim storage — and eventual permanent disposal — of all radioactive material.

German policymakers estimated that the cost of the state's commitment to a complete nuclear phase-out would total €47.5 billion, including €17.4 billion for interim storage and permanent waste disposal. Initially, the energy companies were considered liable for the entire process, including its attendant costs. The German state, however, calculated that the interim storage and the safe disposal of radioactive waste would represent a challenge for decades to come, and therefore constituted too high a risk for private energy producers to assume. With that dilemma in mind, the state struck a deal: Energy companies could transfer their liabilities for nuclear-waste disposal to the state, in exchange for the €17.4 billion plus a risk premium of 35 percent, or €6.2 billion, for a total of €23.6 billion (in 2014 prices).

Since the process of disposing nuclear waste is assumed to stretch over a period of roughly 80 years or more, the state also needed to factor in any increase in future costs. This objective meant taking inflation in account, which is projected to increase at an annualized 1.6 percent over that period, and the increasing costs specific to handling nuclear materials, projected to rise annually by an additional 1.97 percent. Consequently, the future costs of nuclear waste disposal need to be discounted to arrive at the adequate monetary value in current prices. That discount rate was set at 4.58 percent per annum, which — at the same time — corresponds with the anticipated yield on German long-term government bonds.

In the context of its sovereign wealth fund peers, the NWDF's return target constitutes a feasible target. Norway's Government Pension Fund Global, which largely captures public market exposures, has returned an annualized 5.7 percent, excluding management costs, over the 17 years from 1998 through 2015. Singapore's sovereign wealth fund GIC has achieved a 20-year annualized real rate of return of 4.0 percent from 1996 through 2016, and the New Zealand Superannuation Fund has generated an annualized return of 10.2 percent since its inception in 2003. So the challenge for the NWDF is real, but not insurmountable.

Germany's New SWF Seeks to Offset Risks

The new sovereign fund's objective is to generate sufficient returns to cover increasing costs of nuclear waste disposal and storage right through the end of the 21st century. In other words, the NWDF has a clearly defined objective, but its liabilities will only become evident with time. Based on long-term inflation and estimates of storage cost increases, the NWDF's absolute return benchmark is 4.58 percent. How the NWDF deals with the risks of an evolving investment environment and fluctuating returns over the next 80 years or more — especially given the dynamic evolution of its liabilities — will be its key challenge.

As the government was expecting the full contribution of the energy industry by early July, it rushed to set up the NWDF's governance arrangements over the past 12 months. In line with best-practices — and in the context of a very well-defined German regulatory environment — the new legislation details that the

fund's management body shall be legally defined as a foundation, under public law, and based in Berlin. The NWDF will have a Board of Trustees, staffed with members of parliament and representatives of three ministries, that supervises the work of the fund's management team. Thorsten Herdan, Director General Energy Policy Department in the Ministry of Economics and Energy, will serve as the inaugural chairman of the fund's Board of Trustees; Thomas Bareiß, a member of parliament representing the largest government party, the CDU (Christian Democratic Union), will serve as its deputy chairman.

In recognition of the fact that the board may not bring together members with the asset management experience to supervise such a large fund, the legislation permits the NWDF to request the advice of the Bundesbank, Germany's central bank, as needed. The legislation also nominates the three members of the NWDF's management board, who are required to be qualified and experienced asset managers: Anja Mikus, CIO of financial services company Arabesque Asset Management, will serve as the NWDF's inaugural CEO and chief investment officer; Victor Moftakhar, CEO of asset management company Deka Investment, will serve as the fund's chief operating officer; and Jürgen Seja, of insurance company Mecklenburgische Versicherungsgruppe, will serve as chief risk officer.

The management board holds overall operational responsibility for the fund and develops and implements its investment policy with the guidance of the Ministry of Finance. On June 27, the Ministry issued the NWDF's investment mandate, specifying that the new fund may invest in the broad range of asset classes (as specified in Article 215 of the insurance supervision law, "Versicherungsaufsichtsgesetz"). The investment mandate also directs the NWDF to apply environmental, social, and governance (ESG) standards in its investment policy.

Investment Policy Missing

Some internal regulation of the fund remains to be determined, not least its statutes. But what is still missing, more importantly, is a specific investment policy. The Ministry of Finance's investment mandate only provides a very rough outline of the asset classes that the NWDF may invested in — analysts will apparently have to wait for the NWDF to develop a more specific investment strategy that that will eventually inform the fund's asset allocation and operational asset management policies. For the time being, the NWDF also staffed only with a core team. Additional staffing decisions have yet to be made, as well as any determinations about how the fund is going to engage with external asset managers.

The short-term challenge for the NWDF is to transform its sizable cash holdings into a risk-return adjusted investment portfolio. According to our observations, sovereign wealth funds, in general, need approximately three to five years to make that transition. If that scenario is applied to the NWDF as a reasonable time horizon, as well, the new fund's management team will need to balance potentially weaker performance in the current low-yield investment environment with higher-impact performance in successive years. In other words, NWDF's portfolio management style is already primed for a race against the clock.

About

GeoEconomica is an independent macro-trend and political risk advisory and research firm. It monitors how macro trends and politics are moving markets.

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