



E3G

European Perspectives on the Challenges of Financing Low Carbon Investment: Introduction

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The aim of this work was to examine a representative 'cross-section' of European Union (EU) Member States to try to gain a better understanding of the role their public banks and financing institutions play in their economies but also to gain a better understanding of the varying nature of the market failures and financing opportunities and challenges around low carbon infrastructure investment in each country. The Member States selected were Estonia, France, Germany, Poland and Spain, and the rationale for each is explained below. This work built on very detailed work done in the UK, which resulted in the proposal of a Green Investment Bank.

1. Rationale for country selection

Along with Poland, Estonia was selected as a study country to provide a balanced perspective on the Central and Eastern European (CEE) economies. Estonia contrasts sharply with some of its CEE Member State peers. It is a modern economy with a young, skilled and multi-lingual workforce and it is very outward-facing; its culture of transparency that has enabled it to secure high levels of foreign direct investment (FDI). Despite having one of the smallest Member State populations (only Luxembourg, Malta and Cyprus are smaller), Estonia has fully embraced the move to a market economy and is arguably now one of the most open and economically liberal nations within the EU. Privatisation combined with extensive FDI in new companies has helped drive significant growth. This contrasts sharply with some other CEE countries. Estonia is also one of the more interconnected Members States in Europe, and one of the countries collaborating in the Baltic Energy Market Interconnection Plans for gas and electricity. These plans aim to further integrate the Baltic energy system with the rest of the EU market by reinforcing internal networks as well as interconnections with Finland, Sweden and Poland. They will also support offshore wind development in the Baltics and reduce EU exposure to disruption in gas supplies.

France was selected because, alongside Germany, it is one of the dominant forces driving greater European reform and integration. In addition, it already has a near zero carbon electricity system and provides some interesting insights into the nuclear versus renewable

electricity debate. While France has a reputation of being somewhat protectionist, particularly toward its large corporations, it is also in middle of a long-standing a process of transitioning from an economy modelled on high levels of state ownership and intervention to one that relies more on markets. This process has led to the full or partial privatisation of some of France's largest companies, banks and insurers – including Areva, Société Générale and AXA. However, the State continues to maintain significant stakes in companies in strategically important sectors such as power generation and public transportation. One such company is Électricité de France (EDF), which owns France's nuclear generation plant. France is unique in Europe for having very high levels of such nuclear capacity (data from 2008 indicate around 84 percent of electricity comes from nuclear generation). These high levels of nuclear power production combined with the related relatively low carbon emissions per capita and the French Government's ownership of EDF (it has an 85 percent stake) makes the politics around expansion of renewable energy capacity of particular interest.

Germany was selected because it forms the other half of the Franco-German alliance driving the European project forward. But in addition it is the largest and most robust of the European economies; it is home to the largest, and safest, national public bank in the world – KfW Bankengruppe – which operates as part of a larger network of state-wide public banks; and it has a strong record on climate change mitigation. Germany has led Europe in terms of deployment of household energy efficiency and small scale renewables. More recently, in June 2011, Germany has hit the headlines because of a planned phase out of nuclear power. Nuclear phase out had been under discussion for several years, but final decisions were accelerated in the wake of the Fukushima nuclear disaster in Japan. The new plan foresees all of Germany's nuclear plants going offline by 2021, with one possible exception. If the transition to renewable energy does not go as quickly as planned, three of the plants will be allowed to continue operating until 2022, as a safety buffer against electricity shortfalls. The proposals effectively reverse the German Government's previous decision, taken in 2010, to extend the operating lives of Germany's 17 nuclear power plants. This too was a reversal of the decision made by former Chancellor Gerhard Schröder's Social Democratic-Green administration to phase out nuclear power by around 2020. The implications of these announcements are unclear. An even stronger focus on renewables (largescale wind and solar energy) as well as energy efficiency deployment (a 10 percent cut in power use by 2020) is expected to fill the gap left by nuclear phase out, but the current Chancellor, Angela Merkel, has also said that there will be a role for new fossil fuel plant.

Poland was selected because during the 1990s it transformed itself to become one of the largest and most economically robust among the CEE countries. This progress was consolidated in 2004 when EU membership and access to EU Structural Funds provided a further boost to the economy – with Poland becoming one of the most efficient Member States at accessing and leveraging these Structural Funds. During the downturn in 2008/2009, Poland was the only Member State to retain positive GDP growth. Despite this transformation in economic fortune Poland still has high levels of unemployment. There are also ongoing issues with poorly developed/severely ageing infrastructure and a heavy reliance on coal. Poland is interesting politically because of its strong positioning in Europe –

it is increasingly becoming a force to reckon with. In July 2009 Polish MEP Jerzy Buzek – former Polish Prime Minister and initiator of EU accession negotiations in 1997 – was elected as President of the European Parliament, a position he will hold until January 2012. For the second half of 2011 Poland holds the rotating EU Presidency. At the centre of Poland’s priorities is the 2014–2020 European Budget. Presidency priorities will ultimately focus on securing an increased share of this Budget for Poland – as part of a broader agenda on using the EU Budget as an investment tool to serve implementation of the Europe 2020 Strategy – and so they oppose major Budget reform. The main task, as seen by the Polish Presidency, is to put the EU on a path to faster economic growth and enhanced political community. References to tackling climate change are conspicuous by their absence.

Spain was selected because it has a reputation as a global leader in the deployment of renewables. Spain has a high number of leading renewables developers: Iberdrola is the world’s leading windpower producer and Gamesa is the third largest wind turbine manufacturer after Vestas and GE. In addition, Iberdrola was the world’s number one investor in alternative/renewable electricity generation (2003–2009); Acciona the fourth; OPDE seventh; Endesa ninth; Fersa sixteenth; and Gamesa eighteenth. In 2009 Spain ranked sixth in the world for clean energy investment. Since then deployment has slowed – in part because of regulatory uncertainty – with investments declining 54 percent; as a result Spain has fell to eighth place in 2010. This decline is due to regulatory uncertainty created by announcements in 2010 on changes to the solar PV feed-in-tariff levels in Spain not only caused an investment slow-down in home markets, but also created a global dent in the reputation of renewable energy as an attractive sector to invest in. Spain therefore also provides a case study on how not to manage adjustments of policy support frameworks. Finally, while Spain has not needed a bail out, it is in recession and facing the severe and ongoing impacts of the global financial crisis from which – in common with some other Member States – it has yet to fully emerge. Since then the Spanish Government has been battling to reduce levels of public debt. The primary need to manage public debt directly impacts on the ability of the Government to support ongoing renewables expansion which – partly due to regulated consumer energy prices being lower than the cost of production – falls to the Government to subsidise.

2. The role of European public financing institutions

Overview

Each Member State visited in the course of this research had at least one public financing institution. These were: Kredex in Estonia; Caisse de Dépôts et Consignations (CDC) and Oséo in France; Kreditanstalt für Wiederaufbau Bankengruppe (KfW) and 18 state development banks in Germany; Bank Gospodarstwa Krajowego (BGK) and the National Fund for Environmental Protection and Water Management in Poland (the National Fund); Kredex in Estonia; and Instituto de Crédito Oficial (ICO) in Spain. Many were created in response to major structural changes to their respective economies. For example, in the

case of ICO, it was the end of the Franco dictatorship; for KfW it was the end of the Second World War; and for CDC in France and BGK in Poland as a result of major fiscal reforms.

One common theme across Kredex, CDC, Oséo, KfW, BGK and ICO was that they were all fully state-owned; and – with the exception of the National Fund – all have explicit government guarantees. Kredex in Estonia, BGK and the National Fund in Poland, Oséo in France and ICO in Spain report directly to specific government departments – for the most part Economic Affairs or Finance. Germany’s KfW and State Development Banks as well as France’s CDC are more independent from Government, but work closely with their administrations to deliver policy outcomes. In every case the existence of the largest public banks – CDC, KfW, BGK and ICO – is enshrined in dedicated Statutes. Apart from Kredex and the National Fund, which are self-sustaining funds, all the institutions manage a series of funds under a holding company structure. All but Kredex and the National Fund are able to borrow independently from the capital markets, with leverage ratios varying from 1:7 for CDC and BGK to 1:28 for KfW.

Mandate

In every case the major public financing institutions have a mandate to support overall economic development. Social and environmental agendas, including energy efficiency, are key but often secondary priorities or largely outsourced in the case of Poland’s National Fund. Without exception, the institutions focus on promoting the small and medium-sized enterprise (SME) and social housing sectors. Another common theme was that in every case countries use their public financing institutions to disburse EU Budget funding into their economies. CDC, KfW, BGK and ICO all regard themselves as long-term investors – and CDC, BGK and KfW all belong to the Long-Term Investors Club, a group of major global public and private sector investors seeking to drive move away from the current short-term market approach.

Products and sector focus

A broad spectrum of financial products is offered by each institution, ranging from guarantees to loans to mezzanine finance and equity. In Poland, Germany, Estonia and Spain a substantive amount of capital is disbursed through onlending to private sector intermediaries – although direct lending does also occur. France’s CDC has a notable focus on providing equity rather than debt, whereas the KfW Group tends to deploy an on-lending model. However, this changed during the financial crisis when KfW started to undertake direct lending to SMEs for the first time.

Each institution plays an active role in delivering climate-related investment, although in the case of BGK in Poland and Kredex in Estonia this is limited to energy efficiency (which is regarded more as social not environmental investment). In other cases, cofinancing of renewable energy along with commercial actors is a key focus of activity. In Germany some

of the public banks were the biggest lenders to renewable energy, ICO in Spain has also been very active in this space. In February 2012 France's CDC has set up a new dedicated subsidiary CDC Climat to facilitate new carbon markets and invest in innovative carbon assets.

Role in the financial crisis

With the exception of Poland, which did not experience a recession, all countries deployed their public financing institutions in their responses to the financial crisis. In France, CDC was called upon by the Government to provide €40 billion to key sectors; the Strategic Investment Fund – FSI – was established to take minority stakes in leading French companies to ensure they remained under French ownership and to stimulate innovation. €20 billion was contributed by CDC and €20 billion by the French Government. In Germany KfW was mandated to increase lending under the 'KfW Special Programme'. Around €52.5 billion was made available. KfW Mittelstandsbank made loans totalling €13.9 billion available under this Special Programme (including global loans to commercial banks) – 94 percent of which went to SMEs. KfW provided an exemption of risk liability for up to 90 percent for onlending banks. Direct loans were also made as part of a club deals with commercial banks, to a maximum of 50 percent of the deal value. The German Federal Government provided a full guarantee for these assumed credit risks. In Spain ICO was instructed to set up a €20 billion Sustainable Economy Fund, capitalised with €10 billion of funding from ICO itself. It too focused on supporting the SME sector. In Estonia KredEx was called on to increase the volume of guarantees and support provided to Estonian companies to carry them through the crisis.

3. Opportunities and challenges with deploying investment in low carbon infrastructure

Across all countries there is at least one public financing institution playing a part in driving domestic low carbon investment – and in the case of Germany and France also overseas investment. The scale of focus on climate change within the entire portfolio of investments is highly variable between countries. In Germany there is a very high level of activity – around 30 percent KfW's financing activities are in environment protection and it is notable for initiating a special Offshore Wind Energy Programme in 2011 with a total credit volume of €5 billion. Similarly in Spain to date ICO is the eighth largest investor in renewable energy. In the CEE states, climate change is lower down the political agenda, reflecting wider development needs. But the picture is complex: in Poland for example, the activities of BGK are strongly focused of developing traditional infrastructure such as roads – but Poland also has a dedicated environmental National Fund. However, the Fund currently focuses more on addressing pollution than specifically mitigating climate change. Despite this in both Poland (both BGK and the National Fund) and Estonia there is a consistent focus on upgrading housing through energy efficiency retrofits.

In every country there is a significant interest in low carbon investment agenda among commercial players – but it tends to focus more on renewable energy opportunities, perhaps reflecting the fact many are closer to market, rather than emerging opportunities such as carbon capture and storage. There tends to be less commercial interest in energy efficiency. This could reflect the high levels of economic support this sector often needs – and the strong role played by public financing institutions in supporting these investments. With the exception of ICO in Spain, public financing institutions in each country are all involved in providing finance for energy efficiency retrofit programmes aimed at both the residential and SME sector. In all these cases low cost loans, sometimes in combination with loan guarantees and grants, are offered in incentivise action.

In both Poland and Estonia the energy security agenda is in direct competition with the climate change agenda (both countries rely heavily on indigenous fossil fuel resources), although paradoxically Estonia looks like it could well meet its 2020 renewable energy targets. In all countries, however, there is some uncertainty over whether renewable energy targets will actually be met. There are also complex ongoing debates around the value returned to economies from public support to renewable technologies and the ability to retain a lead on green jobs in the face of fierce competition from China in particular. Related to this, the notion of political risk around long-term support for low carbon investments was raised by investors in every country except Germany.

Electricity grid balancing as a potential barrier to further renewable energy expansion was raised as an issue in both Germany and Estonia. In Poland, while renewable energy is not yet at a scale to impact on system balancing, the National Fund has made more than €74.4 million available for smart grid trials. Although Spain doesn't have a smart grid, it does have a world class Renewable Energy Control Centre (CECRE) that has supported integration of intermittent power. In addition it has innate advantages in that electricity demand tends to be matched to its extensive solar power outputs. The CECRE is also looking at the role of pumped storage and future integration of electric vehicles to better balance the network. In Estonia deployment of electric vehicles is also actively being considered as part of the balancing solution there. In Germany consideration is being given to how to amend the regulatory framework to support smart grid investment, and ADEME France's Environment Agency prioritised smart grid investment as part of its green fiscal stimulus package.

Finally, public acceptance of the costs – in the widest sense – of delivering a low carbon transformation in Europe continues to be an issue. In France, Germany and Spain rising energy costs were raised as a political concern – and increased deployment of renewable energy on to the system, rather than other underlying market fundamentals, were being blamed in the media as the cause of this. Unless this narrative is properly deconstructed in the media, it could well erode long-term support for policy-driven markets in low carbon assets. Similarly public acceptance of a changing landscape continues to be a major issue in all countries except Spain, with difficulty obtaining planning consents raised as an ongoing issue in every other country.

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