BVCA *Research* **Note**

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Solar investment in Spain

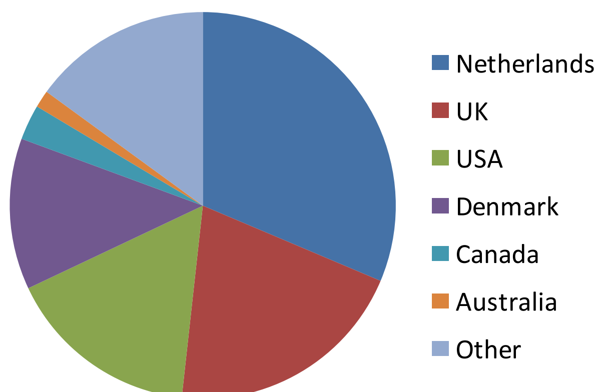
Infrastructure investment relies on stable, predictable regulation, because it involves very long-lived assets where investment and profit is recovered over very long periods. This long-term approach supports lower costs to users, whether in energy, transport or social infrastructure. One way the authorities can attract lower cost, long-term capital is by guaranteeing future revenue streams for investors, either by pre-announcing pricing decisions, or by linking price increases to inflation. Such agreements are critical for ensuring that governments can attract high-quality private capital investments in national infrastructure, thereby maintaining and boosting living standards. In light of this, recent developments in Spain appear to threaten to undermine not just foreign infrastructure investment but also capital inflows more generally, which would exacerbate Spain's current fiscal woes.

Spanish infrastructure – solar PV investments

The Spanish economy, like other developed nations, depends in no small part upon the underlying infrastructure of the economy – the communications network, water supplies and electricity generation, alongside other utilities. Commendably, the Spanish government was also swift to recognise the need to develop renewable energy sources, in order to lower carbon omissions. Spain's enviable weather patterns also imply that solar electricity generation – for instance capturing the sun's energy using photovoltaic (PV) cells – is more attractive than in some other European countries.

However, solar power, like other renewable energy sources, still involves significant capital costs as the technology matures, with uncertain returns over a long period of time. So, in 2007, the government promised investors long-term tariffs over 25 years to remove some of the uncertainty around those investments – and, importantly, this promise not to lower tariffs for qualifying assets was written into Royal Decree 661.

Chart 1: Foreign investments in Spanish solar PV



Source: BVCA & EETB

Private investors responded by investing heavily in Spanish PV plants, which became a €20bn sector, creating over 175,000 jobs, with the potential for many more. Importantly, given the high export intensity of some PV factories, these investments have also boosted Spain's trade position. Private equity and infrastructure funds formed an important part of those investments – a short survey of 13 specialist investors organised by the BVCA's Energy, Environment and Technology Board (EETB) found that these investors have investments totalling €725mn of equity in Spanish Solar PV investments. These investments range from relatively small sums of €20mn or less, to larger projects and groups of projects approaching and exceeding €100mn.

Importantly, none of the capital from the 13 specialist investors was Spanish, with just under 30% of capital coming from the Netherlands, and around 20% from the US and the UK (see Chart 1). The government's promise on tariffs was therefore successful in attracting foreign capital to develop Spain's economic infrastructure. However, Spanish capital investment would also clearly be affected by any changes to the previously agreed pricing structure.

Recent developments in electricity charges and tariffs

These investments were made on the basis of the pricing structure agreed with the Spanish government. The system costs more to operate than consumers are charged – with the government paying utility firms the difference, typically funded by issuing debt. That gap between cost and selling prices has been thrown into doubt, however, by the government's recent decision on 24 June to suspend a planned consumer and business electricity price increase. At the moment, it is unclear whether the government will also seek to cut the tariff it pays utility firms, in order to offset the negative impact on the public finances.

The Spanish government's decision was based on the underlying weakness of its economy – Spanish GDP shrank by 3.6% in 2009, and is likely to decline by a further 0.5% overall in 2010, having only just emerged from recession in the first quarter of this year. The government thinks that an increase in consumers' and businesses' electricity bills, at this time, could hamper economic recovery.

Implications for foreign investment and the public finances

While higher energy prices are likely to weigh on other consumption, as people will have less money to spend on other goods and services, we do not think the impact will be pronounced – in total, renewable energy consumption only accounts for 7% of gross energy consumption, which in turn only accounts for around 1% of Spanish GDP. An increase of around 4% in consumer electricity bills would not therefore have a particularly large effect. But if the government suspends the price increase and also cuts the previously agreed feed-in tariffs for solar PV, if it is unwilling to fund the difference, that could have serious implications for investment in the Spanish economy, and long-term infrastructure projects in particular.

Changing the terms of new projects will obviously deter new investment. But unilateral changes to previous agreements about pricing – in essence, re-introducing the long-term uncertainties that discouraged investment in the first place – will have an even bigger impact in deterring international investors from entering or returning to the market. Any move to change previously agreed tariffs could therefore directly damage Spain's attempt to rebalance its economy away from domestic spending and consumption, and towards investment and exports. And with risk aversion still prevalent, it could actively discourage foreign direct investment more broadly.

Furthermore, in light of concerns about sovereign credit that are evident in both bond and CDS spreads, given the Spanish government's overall budget deficit of more than 11% of GDP in 2009 – much of which will be carried through to this year – broader investor appetite for Spanish debt would also be hit, if the government starts to renege on previous commitments. However, if the government does meet the now-wider funding gap between consumer prices and the previously agreed tariffs with utilities companies, that would put the public finances under further pressure.

This analysis suggests that the authorities' best course of action may be to reinstate the tariff increase, even if it is unpopular, unless the government is willing to take on even more debt in order to ensure that investors get the prices that were agreed when they made their investments. Unilaterally changing long-term investment agreements would only drive investors away from the investments those agreements depend upon, damaging the infrastructure of the Spanish economy and its long-term prospects. And, given the recent nervousness and contagion in financial markets, such a move could make investors question the wisdom of buying Spanish debt altogether – making the government's fiscal position that much more precarious.

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