

The energy sector in Scotland's future

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1. In thinking about the role of the energy sector in an independent Scotland it is essential to put aside preconceptions based on the current situation in which Scotland is part of the much larger economic unit that comprises the United Kingdom. As a separate country, Scotland will be a classic small, open, resource-dependent country but with a rather poor location. The last qualification matters because the rents that can be earned from its natural resources – not just energy but agriculture, tourism and other resource-based activities - are affected by its location and may be lower than would be the case for other European countries.
2. The energy sector is highly capital-intensive, not only for direct production but in the infrastructure required to support it. A large share of the revenue generated by the sector is committed to the return on and the recovery of the capital invested. Further, oil and gas production requires continuous investment to maintain production. As a mature province, the marginal investment that is required to sustain and/or increase oil & gas production in Scotland is considerably higher than in many other parts of the world. This cost may be offset by lower risks, but only if the investment climate is favourable.
3. Real energy prices are prone to large cycles over the medium term. Currently they are high but it would be unwise to assume that they will remain high. Two key lessons from the story of “fracking” in the US are (a) the impact of technological innovation on supply when the incentives are strong enough, and (b) the abrupt decline in prices and returns when the balance between supply and demand shifted. Any energy-dependent economy must plan on the assumption of volatile prices combined with the need to maintain investment in both production and technology.
4. Every country in Scotland's position – even Norway – has suffered from some degree of Dutch disease caused by the volatility of the energy market. The usual pattern is that high prices and returns generate an investment boom which drives up wages and the costs of non-traded sectors – construction, services, etc. This undermines the viability of non-energy manufacturing activities which close down or relocate. While Scotland remains part of the UK this effect is diffused over a much larger economy, but it would be acute when concentrated in Scotland. When the downturn occurs, as inevitably it will, the boom is replaced by higher unemployment and a severe squeeze on the public finances.
5. The classic remedies for this kind of energy-driven economic cycle are (a) allow the exchange rate to move in a counter-cyclical manner, (b) encourage factor mobility – in practice the out-migration of workers, and/or (c) build up a large stabilisation fund. Almost certainly all of these policies would be required but it is not clear that the Scottish Government or the population understands the implications.
6. Following the example of Norway in setting up a sovereign wealth fund (SWF) is a necessity, but an independent Scotland would be starting from a much worse position. Norway has invested a large share of the rents generated by its oil & gas for more than 20 years, not only in its SWF but also by self-funding the large capital investment required to develop the resources. In contrast, Scotland

has relied – and must continue to rely – upon external capital flows to fund investment in the energy sector. Further, the starting point for Scotland’s fiscal position is that current resource rents and net capital flows are required to finance current spending plus the investment that will be required to sustain production in the next 10-20 years.

7. As a consequence, the prospect for energy-based growth in the Scottish economy depends on a continuation of high – and probably rising - energy prices plus an investment climate that is strongly favourable for net capital inflows. There is a wide range of different views about the prospects for future energy prices. It would be unwise for an independent Scotland to place too large a bet on the view that the cyclical character of energy prices and the energy market has been repealed. So, it is essential to consider how lower energy prices and rents will affect the economy.

8. Protecting the non-energy sector from the effects of energy investment booms in an economy with the features of an independent Scotland is practically impossible. Sadly, this means that the vision of a Scotland with a revitalised manufacturing sector comes down to a choice about whether to forego the rents and capital flows generated by energy and other natural resources. Fiscally, Scotland is sufficiently dependent on these rents and capital flows that foregoing them would require a very painful adjustment in public spending, so that this seems to be an unlikely prospect. The best that can be expected is that manufacturing and services directly linked to the energy sector can thrive in both the domestic and international market. Still, it must be borne in mind that these markets may be almost as volatile as the energy sector itself.

9. Finally, the question of market access remains an important unknown. Because of its location, Scotland will depend upon the ability to export large amounts of electricity, gas and even oil to England. Without guaranteed market access, the resource rents from the energy sector will be significantly lower. It is argued that there is a strong mutual interest in maintaining integrated markets. That view may be too optimistic: history tells us that when countries break up, then unified energy markets tend to weaken quite rapidly thereafter with strong incentives to replace imports by domestic production.

10. Would separation of the Scotland from the UK be accompanied by a change in attitudes and policy concerning the development of England’s non-conventional gas resources or greater investment in capacity to import LNG? Both would seem to be minimally prudent steps to a government in London that wished to replace the loss of oil & gas rents and reduce dependence on imported gas.

11. Similarly, is it really the case that an English government would treat renewable electricity generated in Scotland, whether from wind or marine resources, on a par with domestic renewables? Again, this view may be much too optimistic. Any government in London has clear alternatives which range from abandoning targets for renewables to importing renewable energy from elsewhere – wood chips, Irish wind or marine power. A plausible scenario is that Scotland will continue to export renewable energy but only at a price adjusted for the costs of transmission & intermittency that matches the cost of new nuclear power. If that were the outcome, the return to capital investment in all forms of renewable energy would fall substantially.