A Green Return to European Growth

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THE HAGUE – Mitigating climate change is often presented as imposing a trade-off between the economy and the environment. For too long, the debate has been framed around the concept of "burden-sharing." But new analysis by a team from six leading European universities and institutes casts new light on this debate, and shows that Europe can make choices that are in its own best economic *and* environmental interest.

The analysis contained in our new report, *A New Growth Path for Europe – Generating Prosperity and Jobs in the Low-Carbon Economy*, is based on a comprehensive assessment of European growth prospects in the aftermath of the financial crisis. Its publication is timely, because the European Union will decide this year whether to raise its target for greenhouse-gas reduction.

Increasing the current emissions target from -20% to -30% by 2020 compared to 1990 would represent an important opportunity to revitalize the European economy – independently of what the rest of the world did in terms of climate policy. Over the coming decade, seizing that opportunity would increase the size of Europe's economy considerably – by up to 5% over the next decade. This translates into six million new jobs and an increase in GDP of up to €800 billion by 2020.

The reason for these results is straightforward: increasing Europe's climate-policy efforts boosts investments, thus inducing learning-by-doing, especially when these efforts are channeled into new technologies like renewable energy and advanced construction materials. Learning-by-doing, in turn, increases competitiveness and spurs economic growth, thereby improving investors' expectations – and inducing further investment.

Unfortunately, studies of the economic impact of a -30% target have relied on traditional equilibrium models that neglect these multiplier effects. Their estimates of the economic consequences of raising the target result in moderate additional costs, ranging from 0-2% of GDP in 2020.

The new study uses an approach similar to that underpinning Germany's 2020 emissions-reduction target of -40%. At last year's United Nations-sponsored climate-change conference in Cancún, Mexico, German Federal Environment Minister Norbert Röttgen noted that, "In Germany, there has been a shift in thinking over the past years: in industry, politics, and society, we now see climate policy as an opportunity and challenge, not as a threat."

Röttgen is right. Imagine a gathering of textile entrepreneurs in 1800 debating whether to introduce steam machines to mechanize their cotton mills. One of them calculates that the costs would be prohibitive across their hundreds of plants. If the rest accepted this bottom-up calculation, society would miss out on the 0.5% boost to annual growth that this radical innovation ultimately brought about. The benefit to the entire economy was bigger than the sum of the benefits for the individual mills.

It was not the invention of the steam engine alone that deserves the credit. Then as now, such breakthroughs generate a cascade of learning and innovation as suppliers, contractors. and customers adapt to a new way of operating. Every new major technological idea – the steam engine, railways, or the personal computer – adds up to a boost to growth.

A New Growth Path for Europe shows how investing in energy efficiency and clean energy has the same potential to revitalize Europe today. Indeed, Josef Ackermann, Chairman of Deutsche Bank, recently said that such investments augur "a new industrial revolution – a revolution that will transform the way we live."

The analysis shows how all major economic sectors – including many energy-intensive industries – will grow. For example, energy-efficient buildings are a boon to the cement and chemical industries. Obviously, the fossil-fuel sector would shrink by 2020 as the energy system decarbonizes, with coal being partly displaced by lower-carbon fuels, mainly gas and renewables (carbon capture and storage and nuclear power cannot make much of a difference by 2020). The new EU member states, which have lower energy efficiency, stand to benefit the most – though substantial hurdles must be overcome with additional support mechanisms.

Because the financial crisis has lowered greenhouse-gas emissions, the -20% reduction target set before the crisis is no longer challenging enough to catalyze a structural shift in the European economy. And, as scientists become gloomier and underline the urgency of tackling climate change, economists are becoming increasingly optimistic about the opportunities implied by a low-carbon future.

A New Growth Path for Europe supports that optimism, and it calls on the EU to act accordingly.

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