

Euro warning to carbon markets

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Australian Financial Review

2 December 2011

It's ironic that in the same week Australia adopted a carbon pricing model heavily reliant on access to an international carbon market (a common "carbon currency"), the common currency arrangement in Europe known as the euro teetered on the edge of collapse. It's well known that the features and fragilities of the proposed global carbon market model are very similar to that of a common currency area.

In a common currency area or currency union, money produced by different countries is traded at a common price. In the European monetary union a single currency called the euro is printed by different central banks. Even though the system is managed by the European Central Bank, each euro note has a number system that makes it clear which central bank is responsible for providing the value backing the euro.

The euro can only work if the underlying drivers of currency values in the different economies are consistent with each other. There are a number of important and well known conditions required for a currency union to survive. These are clearly set out in the large literature on Optimal Currency Areas. These factors include consistency in economic structures, similar economic shocks facing each country – so that business cycles are synchronised, mobility of labour, consistency of tax and expenditure policies etc.

A key feature explicit in the Maastricht accords that underlay the birth of the euro is co-ordinated fiscal policy and in particular limits of the ratios of debts to gross domestic product and deficits to GDP. In the original Maastricht Agreement countries were obliged to reduce government debt to a maximum of 60 per cent of GDP and fiscal deficits to 3 per cent of GDP.

The euro is under incredible strain because of a range of inconsistencies across countries. The trigger has been the massive expansion of unsustainable deficits and debts which now requires debt restructuring. However a bigger problem is the competitiveness difference between the core economy of Germany and the periphery economies, especially in southern Europe. The sustained differential in productivity across these economies, together with the government debt crisis, requires a massive real change in the value of currencies which are locked together.

The real exchange rate (that is the nominal exchange rate adjusted by the relative price level in different economies) is the variable that needs to change, even more than the debt needs to be renegotiated. A depreciation of the real exchange rate in the southern European economies can come about by a massive appreciation of the German part of the euro or a massive depreciation of the rest of the euro zone.

It can also come about by high inflation in Germany or deflation in the southern European economies. Managing these adjustments given the preferences of the countries involved is almost impossible. Add to this the underlying insolvency of many European banks once sovereign debt begins to be defaulted and there is a recipe for an economic disaster.

The economics of debt sustainability is well understood. What matters is the nominal interest rate on the debt relative to the nominal growth rate of the economy. With no real growth and even moderate interest rates, debt will rise uncontrollably. The larger the initial stock of government debt the more quickly debt spirals out of control. As debt rises, the required interest rate on debt will rise through higher risk premia and thus the gap between the interest rate on debt and the growth rate increases sharply. This situation cannot last long. Even reducing debt when there is zero or negative economic growth does not solve the underlying problem – it only delays the problem.

With an overvalued exchange rate in southern European economies the prospects for growth are extremely limited. Tightening fiscal policy inside a fixed exchange rate system causes very sharp real

output losses because the crowding-in of exports that usually accompanies a fiscal contraction is delayed by a fixed exchange rate.

The combination of a fixed exchange rate plus a need for major fiscal restructuring and contraction and the historical legacy of a long period of poor productivity growth relative to the core country in the fixed exchange rate system guarantees a severe and painful deflationary spiral and ultimate economic collapse. To avoid this disaster scenario both the debt crisis and the competitiveness problems need to be addressed simultaneously.

Why is this clear inconsistency in the design of the European single currency experiment relevant for climate policy? The single currency debate in Europe is based on many of the same notions that underlie the debate on global carbon trading – that is if you believe something to be so it will be so despite the economic arguments against it. In the climate space there are many who argue that a global market trading in emission permits can be used to reduce the costs of a national system by buying and selling permits in that global market. The argument goes that because there is a global market for oil then there can be a global market for carbon permits.

The fallacy in this analogy is that carbon rights are more like money than they are like a physical commodity. The value of a permit lies in the promise of an issuing government to maintain the purchasing power of the permit – just as the value of money depends on a government's ability to maintain the purchasing power of money. Issue too much government debt inside a monetary union and the value of the government credibility behind the currency will evaporate. Money and emission permits are therefore based on the same concepts. A permit only has value if a country can guarantee to hit its carbon target directly or through buying other countries permits.

Ironically the 17 countries that make up the euro zone are much closer in characteristics than the disparate countries that would make up a global carbon emission trading system or the carbon zone. Some of the key large countries in the carbon zone include China, India Brazil, Russia, Europe, the United States, Japan and Indonesia. The idea that a credible and viable single currency zone could be created between these countries would not be considered for a moment. Yet these are the countries that would make up the carbon zone. We may wish it to be that a viable global carbon market could be created but in the end the carbon zone would go the way of the euro zone where several countries with different incentives to others in the zone would create too many permits and debase the carbon currency. This is particularly problematic in the carbon zone because the countries involved are all large in terms of the market.

The main lesson from the European experience on a common currency for carbon policy at the global level is that a degree of insulation between national carbon markets is a better and more sustainable way forward. National carbon policy should rely on national institutions and a clear national policy framework for managing carbon emissions efficiently.

The idea that there are gains from trade in carbon markets such as proposed in various government reviews is theoretically appealing but practically naïve in a highly uncertain world. This approach shows a complete lack of understanding that carbon policy design is closer to the design of a monetary system than being analogous to a trade policy issue.

The approach taken by the current Australian government exposes national carbon policy to enormous uncertainty. Uncertainty leads to lack of investment and investment in future carbon abatement and adaptation is the key to a low cost low carbon future.

How important is this assumption about the move towards an international carbon trading system that excites many carbon market advocates? A recent study by the Centre for International Economics using a publicly available internationally recognised global economic model showed how uncertain the costs to Australia of the Clean Energy Future legislation really are.

Firstly the GDP costs in the base scenario that has similar assumptions to the recent Treasury report are very different in the CIE report. This mostly occurs because the model use by the CIE has forward

looking households and firms who adjust in the short run to the long run structural change in the Australian economy. This is assumed away in the Treasury report.

Secondly the CIE report shows that the lack of any global carbon market or a market with different countries participating causes very large changes in Australia's GDP cost estimates relative to the results from the single Treasury scenario that assumes global action by 2015. Despite being dismissed by various government ministers, this new CIE study is completely consistent with the results produced using the same model by the Treasury in the 2008 Treasury report on *Australia's Low Pollution Future: The Economics of Climate Change Mitigation*.

Rather than basing policy design on the belief that we can predict the future of national and global greenhouse emissions and that the government can predict the extent and nature of a global agreement on carbon abatement policy, Australia's policy should have focused on the best strategy for Australia in an uncertain world. But instead of dealing with the fundamental uncertainty, the policy starts with a carbon price that is too high given the uncertainty about carbon prices in the rest of the world.

It introduces too many distorting policies aimed at making renewable energy profitable. It provides compensation in the form of tax cuts and payments that are related to the forecast revenue streams but not the realised revenue streams. It has a ceiling price, the price that protects Australia from excessive costs, reliant on the existence of a foreign source of permits which possibly won't ever exist. Finally it switches from a high tax to cap and trade permit markets with a price collar in 2015 which introduces enormous uncertainty about the future carbon price.

These flaws could be easily addressed if the policy framework moved closer to the original Shergold Report approach (which had bipartisan support) and even further to the intellectual roots of the policy that was set out in the original McKibbin-Wilcoxon Hybrid Approach of the mid-1990s. That approach is to start with a low fixed carbon price embedded in a long-term market for trading emission rights.

A long-term commitment to carbon emission reduction should be used as a basis for establishing a long-term yield curve of carbon prices that investors can use to guide carbon abatement policy. There should be a credible floor and ceiling price for the carbon market over time. The policy should not switch between a tax and a carbon trading model midstream. Finally the approach should pull back from the infant-industry policy that targets renewable technologies when Australia's comparative advantage suggests that renewables will likely be an infant industry in Australia for a long time.

The single currency experiment in Europe is close to a predictable and extremely costly failure. It can still be saved but it would require a substantial shift in the position of Germany that is unlikely. The euro concept was always driven by politics and not sound economics. It may have worked if the world was different and countries in Europe did not follow national self-interest. It may have worked if the desires of the German core could be enforced on the non-German periphery. The reliance of Australia's Clean Energy Future legislation on the existence of a global carbon market and a binding international agreement with countries taking commensurate action is doomed to a similar fate.

Anyone who believes there will be a sustainable global carbon market any time in the future probably also believes that the euro will survive in its current form because it is politically inconvenient if it doesn't.

It wasn't that the politicians weren't told of the dangers in the basic conceptual design that eventuated. It wasn't that they didn't listen. It must be that they just chose to ignore the economic arguments in the face of political temptation. In the end politics triumphed and the ultimate costs of the policy failure will be enormous. Unless the fundamental flaws are fixed in the approach of Australia's Clean Energy Future legislation, the same will likely be the epitaph of the climate debate and policy response in Australia.

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