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Spillover taxes could help boost green energy projects in Asia

Green energy projects need innovative funding methods if they are to succeed in Asia. One option governments could consider is to plow additional taxes generated by green energy projects back into those projects.

Almost 40% of the world's CO2 emissions come from Asia. That's because almost 90% of the energy generated in the region comes from fossil fuels. In 2015, about 50% of primary energy consumption in Asia and the Pacific was from coal; and the share of solar, wind, hydro, geothermal and nuclear all together in Asia's energy consumption was almost only 6%.

That needs to change.

But for green energy to grow in Asia, money is needed to fund new projects. Up until now, generating private sector investment in green energy in Asia has been a major challenge.

In 2017, global investment in renewable energy and energy efficiency declined by 3% and there is a risk that it will slow further. Clearly, fossil fuels still dominate energy investments. This could threaten the expansion of green energy needed to meet energy security, climate, and clean-air goals.

Elsewhere, deep and varied capital markets can potentially be tapped to find investors interested in taking on green energy projects. In the U.S., for example, households held almost half of their financial assets in stocks and other securities. That makes for a large pool of money, some of which might find its way into green energy projects. Even so, finding money for green energy projects remains a challenge in the U.S.

In Asia, those sorts of capital markets are much smaller. Japan has Asia's most developed capital markets but only about 12% of Japanese households' financial assets are in the form of securities and stocks while about half of their money is kept in cash and bank deposits, and the balance in insurance and pension funds.

Much of Asia relies on bank lending for the capital needed to start businesses or expand existing ones. That presents a problem for green energy projects.

The money banks use to make loans comes from deposits, which for the most part are made for short periods. A year or two is the usual term for a bank deposit. But green energy projects are investments that take much longer to pay off. That means there is a timing mismatch between the deposits the banks are taking and the loans they might make to green energy projects.

Banks also tend to think of green energy projects as being riskier than most other business propositions. And banks don't like risk.

Pension and insurance companies have money to invest and because the money they receive is held for long periods, they are better suited to investing in big energy projects that might take a while to make money.

For green energy projects to attract investors, governments need to provide incentives.

A recent working paper for the Asian Development Bank Institute suggests one way they can do that. It explains how governments can use the future benefits of such projects to help get those projects started.

Here's how it works:

Projects can be analyzed to break down the future benefits from the growth they will help bring about in a region. New sources of power mean new businesses, new neighborhoods, and other development, all of which will pay taxes. These are known as “spillover” taxes since they are generated as a spillover effect of the new energy project.

The government can pledge to put those spillover taxes back into the green energy project, thereby helping the project become profitable for investors. If investors are willing to pay to get the green energy project started, they will benefit from the spillover effects generated by that project.

The paper also suggests that residents could help promote investment in green energy through hometown investment trusts, a community-based financial innovation that has seen some success in Japan and has since been spreading to other countries.

These trusts are similar to crowdfunding efforts. Investors are brought together through the internet to invest in green energy projects. They can invest as little as a few hundred dollars on projects that are tailored to meet local needs.

Unlike crowdfunding, which is run strictly for profit, there is an element of doing good in hometown investment trusts. The investments typically support small wind or solar projects and the authors of the paper note that investors get a “warm feeling” from promoting green energy in their area, since it’s an environmentally sustainable solution.

As well as promoting green energy in their region, these investors can also benefit directly: The electricity generated by the project can then be part of the payoff they get.

The authors note that these trusts can also be used to show the viability of green energy projects. Local investors can support a green energy project when it is getting off the ground. Once it has shown success, banks or other large investors may be willing to step in and fund its expansion or future operations.

This podcast was based on *A Model for Utilizing Spillover Taxes and Community-Based Funds to Fill the Green Energy Financing Gap in Asia*, a working paper for the Asian Development Bank Institute by Naoyuki Yoshino, dean and chief executive officer of the Asian Development Bank Institute and professor emeritus of Keio University in Tokyo and Farhad Taghizadeh-Hesary, assistant professor at the Faculty of Political Science and Economics of Waseda University in Tokyo.

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