

## Global Incentive System for Protecting the Environment, *written by* **Ádám Bencsik**

### HARDGEM

A new currency is introduced called Gem. All products and services entering the market have their usual price determined by the seller and a second price quoted in Gems. The Gem price reflects the carbon and ecological footprint of the given product or service, the amount of environmental damage that was made by the production of the product or provision of the service.

Gem prices of the products are defined by an international scientific institution, the Gem Institute, that creates the methodology and monitors global Gem pricing by this set of well-defined rules. Each country sets up an affiliate institution to administer Gem pricing locally, which are supervised and checked by the International Institute. Gem pricing experts are trained and qualified, a new job and academic subject is created. There is a detailed online database of the Gem prices of every product and service. When something is bought the usual price and the Gem price also must be paid. Gems used for a transaction cease to exist after the transaction.

Gems are created and distributed monthly by an International Gem Bank. The same rule will apply to everyone and individual countries can't exploit the system. At the start the Gem Bank creates and distributes as many Gems as much carbon emission and pollution happen in a given period. The Gems are distributed to everyone, but they don't receive equal amounts. The amount people receive depend on the level of their income, otherwise everybody above the equal amount is constantly losing while everybody under is constantly winning. This way it is enough for everybody to behave more green compared to his own level in order to gain. Furthermore the distribution is based on a function where the second derivate is negative. Therefore, lower income people receive proportionally more Gems. This method is likely to be popular because it benefits those who behave more environmentally consciously at a given income level and also redistributes wealth to those with lower income. The Gem Bank receives depersonalized income data from national tax institutions for the calculations. Gems are distributed, hold, treaded and paid through apps which are certified by the Gem Bank. The Gem Bank operates an international Gem trading platform where Gems can be bought and sold real time for real money. To facilitate the trade the Gem Bank provides free of charge currency conversion, hence everyone can transact in her local currency. This has the side effect that lower income countries' currencies are likely to appreciate, since the Gem Bank has to buy their currency on the FX market in order to provide for the difference between the Gems their inhabitants buy and sell. The certified Gem apps provide this trading functionality for everyone. The system provides various benefits: At the start there are as many Gems as pollution, therefore it does not require immediate reduction in consumption. However, it creates incentives for a competition, where people can gain if they pollute less than other people at their income level. This makes implementation easier since it does not require major absolute behavioral change only relative to other people at the same income level. There is also redistribution, because lower income people receive more Gems than proportional to their income. This feature is probably very popular since at every level of income there are more people below. This also creates benefits for poorer

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countries and for the inactive part of every society, namely the elderly pensioners. Given widespread problems with pension systems this can be highly beneficial. Individual countries can't hack the system and it's also relatively difficult to corrupt because of the Gem Institute assigns Gem values to products and the Gem Bank creates, distributes between countries, trades and destroys the Gems. Within each country distribution of Gems to individuals are done by National Gem Banks, but they are under the supervision of the International Gem Bank.

As a second step every joining country has to buy a certain amount of Gem each month and these Gems are destroyed. The elimination of Gems creates scarcity of Gems, resulting in increasing Gem prices and also propels liquidity on the exchange. Increasing Gem prices create more incentives to buy less high pollution footprint goods and more green goods or consume less altogether. How do countries finance the purchase of Gems? Either from their budgets or they issue local Gem Bonds which can be bought by National Banks. This is a form of monetary financing, it increases the monetary base, which can ultimately lead to inflation. However, the Gem system in itself is deflationary, because it creates incentives to consume less, and therefore can lead to lower level of demand. The amount of Gems a country must buy depend on its level of development and carbon emission. Lower GDP per capita countries have to buy less, and higher carbon emission countries have to buy more. This creates incentives for low income countries to choose a relatively low pollution and carbon emission development path.

Not only countries but individuals and companies can also buy and destroy Gems. In this case if someone wants to do something or make a financial contribution for protecting the environment or against climate change it becomes very easy. With one click on their Gem application they can do it.

### **SOFTGEM**

The HardGem system is quite complex and expensive to set up, furthermore a lot depend on the level of trust by the people in the system. Therefore, a lighter SoftGem system may be expedient to precede the hard. In this version the Gem Institute is set up and it provides Gem data for different products and services. The certified Gem apps are also developed, but it is only for providing the information of the Gem values. This system would help voluntary behavior changes to pollute less by making people aware of the damage they make by consumption. For example when shopping we would see the Gem values and could decide consciously to buy less, or buy more greener products. Using the SoftGem information people would get used to the system and may be more open at a second stage to HardGems.