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Fiscal Policy for Circular Business Model: International Experience and Lessons for Vietnam

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Abstract: Fiscal policy is considered as an effective economic instrument for guiding and encouraging businesses to implement the circular economy model by affecting the costs and benefits of production and consumption behaviors of subjects. This article gives an overview of the circular economy model, world trends, the role of fiscal policy and international experience in using tax policy tools to encourage businesses to implement the circular economy model. This article also analyzes the current situation of fiscal policy on guiding and encouraging businesses to implement the circular economy model and makes recommendations for Vietnam.

Key words: circular business, fiscal policy, green growth, sustainable development
JEL codes: G38

1. Introduction

Vietnam is one of the world's top five most vulnerable countries to climate change, with increasingly serious pollution levels and increasingly scarce resources. Therefore, the implementation of the theoretical economy in general and the digital economy in particular is considered as one of the main solutions, which is reflected in the recent guidelines, policies and laws of the Party and State such as the Document of the Party Congress, Socio-economic development strategy, legal regulations and operating documents. In order to successfully develop a circular economy, in which business organizations play a pivotal role, policies to encourage and support businesses to convert to a digital economy model play a very important role. important, where fiscal policy is seen as central, especially in the early stages of the transition.

Although it has been mentioned since the last years of the 1960s, in the work "Economy of a spaceship named Earth" (Boulding, 1966), the theoretical economy and the new economic model are only real the interest has returned from the beginning of the 21st century, in which the new mathematical model has been mentioned in both theoretical and experimental studies since the middle of the 2nd decade of this century. The reason why this model has received great attention is because the condition to meet the requirements for the development of this model has really just appeared, that is, the development of science and technology has reached the level of helping people to develop a new model. handle the problems of this model, especially the fourth industrial revolution.

Along with science and technology, fiscal policy plays a decisive role in the successful development of the knowledge economy as well as circular business model. This article will refer to the experience of developing

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fiscal policy for circular business model of some countries, lessons and some policy suggestions for Vietnam.

2. Literature Review

Circular Business Models (CBMs) can be considered as the interpretation of circular economy principles within the company's boundaries. Depending on the experts, CBMs can be classified under the wider umbrella of either Green Business Models (GBMs) and/or Sustainable Business Models (SBMs). About this topic, a systematic literature review has been carried out by Rosa et al. (2019). Results unveil that in terms of CBMs the most discussed research areas are i) practical implementation of CBMs, ii) challenges related with the adoption of CBMs and iii) decision-support tools.

It is possible to distinguish three research streams on CBM classification: i) papers referring to the ReSOLVE framework (The Ellen MacArthur Foundation, 2015), ii) papers referring to the Business Model Canvas (BMC) methodology (Osterwalder A. et. al, 2010) and iii) papers proposing hybrid models mixing both the previous methods. The ReSOLVE framework (The Ellen MacArthur Foundation, 2015) aims at supporting companies and governments during the definition of circular economy policies. It identifies six different ways to be circular (e.g. Regenerate, Share, Optimize, Loop, Virtualize and Exchange). Each of them is subsequently detailed in specific actions. Even if the ReSOLVE framework cannot be considered a real classification method, many experts started from it to develop their own models.

Considering the BMC-based classification methods, papers pertaining to this category try to modify the original BMC in order to map circularities. Considering hybrid models, the experts try to mix the previous classification methods in order to reinforce them. Given the popularity of ReSOLVE and BMC methods, the FENIX project considered them as reference CBM classification methods. Specifically, the ReSOLVE framework has been exploited for the identification of CBM archetypes at macro level.

Subsequently, the BMC method has been considered for the detailed description of CBMs at micro level. In addition, a meso classification of CBMs archetypes was adapted from the last OECD's report on CBMs (consisting of fourteen classes considering the full amount of different business models related with circular economy existing in literature) (OECD — European cooperation and economic development organization, 2017).

Considering tables reported by Rosa et al. (Tolio T. et al., 2017), it is possible to see that some types of CBMs are more frequent than others. The most common CBMs described in literature are represented by recycling practices and use-oriented PSSs. They are followed by bio-based/secondary materials exploitation, reuse and refurbishing/remanufacturing practices, result-oriented and product-oriented PSSs and industrial symbiosis. Not so commonly described in literature are those CBMs related on renewable energies, co-ownership and co-access, repair practices, product dematerialization and new technologies. However, it is evident from the assessed literature the presence of a big research gap in terms of i) how practically transform linear BMs in circular ones and ii) how to involve common people in current industrial CBMs.

3. Methodology and Proposed Model

3.1 Data Collection Method

This article collected data on the basis of studying existing documents and by manipulating logical thinking to draw necessary scientific conclusions related to the content of circular business model. By reviewing the scientific literature from various official sources around the world as well as practicing the method of

systematizing theory and history, the article has reached important conclusions on the issues involved to the situation of fiscal policies for circular business model in several countries.

3.2 Data Analysis Method

Research conceptualize overview of circular business model; summarize the situation of circular agriculture development in the world, then discuss and draw lessons from fiscal policies for circular business model in Vietnam.

4. Research Results

4.1 Overview of Fiscal Policy for Circular Business

4.1.1 Concepts of Circular Business

All but two[1] of the reviewed definitions focus on value creation and roughly follow either the value logic framework of Richardson (2008), which envisions the value proposition, value creation and delivery, and value capture (Linder & Williander, 2017; Nußholz, 2017; Lahti et al., 2018), or the business model definition of Osterwalder and Pigneur (2010), which is based on that logic: "A business model describes the rationale of how an organisation creates, delivers, and captures value" (p. 14). This is then combined with circular economy principles (Manninen et al., 2018; Lüdeke-Freund et al., 2019; Zucchella & Previtali, 2019) or translated into circular business model strategies by Bocken et al. (2016), Geissdoerfer et al. (2018), and Oghazi and Mostaghel (2018).

These comprise recycling measures (closing), efficiency improvements (narrowing), use phase extensions (extending), a more intense use phase (intensifying), and the substitution of product utility by service and software solutions (dematerializing) (Geissdoerfer et al., 2018). However, while all of these strategies seem compliant with the circular economy as conceptualised for example by Webster (2015), we could not find any source that would justify a business model to qualify as "circular" (Urbinati et al., 2017) or compliant with the circular economy concept solely based on the idea of narrowing loops (i.e., efficiency gains alone). Thus, this strategy seems to constitute more of an "add-on" than a circular business model strategy in its own right.

Some authors highlight the relationship between circular and sustainable business models. Geissdoerfer et al. (2018), Lahti et al. (2018), and Zucchella and Previtali (2019) assume sustainability aspects to be integral to the circular business model concept. This corresponds to a previous analysis carried by the authors that some but not all conceptualizations of circular business models focus on sustainability aspects (Pieroni et al., 2019).

Based on this analysis of the literature, circular business models can be defined as business models that are cycling, extending, intensifying, and/or dematerializing material and energy loops to reduce the resource inputs into and the waste and emission leakage out of an organizational system. This comprises recycling measures (cycling), use phase extensions (extending), a more intense use phase (intensifying), and the substitution of products by service and software solutions (dematerializing).

4.1.2 Fiscal Policy For Circular Business Model

According to Rizos et al. (2021), 39% of surveyed businesses (accounting for the highest percentage) believe that it is necessary to increase financial support for businesses implementing traditional business models or

[1] Urbinati et al. (2017) refer to CE practices (e.g., recycling and reuse) and Manninen et al. (2018) refer to the related concept of Natural Capital instead.

activities. Higher costs when implementing business according to circular principles are a barrier (26% in the electrical and electronics industry and 50% in the agricultural and food industry). Access to financial resources (23% in the electrical and electronics industry and 30% in the agricultural and food industry).

In Vietnam, according to the 2021 survey results of the Vietnam Business Council for Sustainable Development (VBCSD) and EPRO Consulting Joint Stock Company, 54% of businesses have difficulty converting their models. In a circular model, nearly 48% believe that financial difficulties are a barrier to this transformation, accounting for the highest proportion of difficulties (technology and engineering is 43% and policy is 34%).

Therefore, it is obvious that fiscal policy plays a very important role in converting the model from linear to circular economy. To implement fiscal policies for circular transition, government intervention mainly bases on the tax system and government spending along with the development of the credit system. used to support the development of this model. In addition, the public procurement process will attract a large amount of investment from businesses, thereby creating resources and a stepping stone to develop circular business model; At the same time, it helps strengthen private investors' confidence in the circular economy. The credit system plays another important role, which is to create stable loan channels for businesses to develop business models.

4.2 Experience of Some Countries on Fiscal Policies For Circular Business Model

4.2.1 Tax Policies

a) Tax policies on economic activities harm the environment

To limit plastic waste and promote the transition to circular economy for plastic, European countries have proposed different tax rates applied to plastic waste, such as 450 EUR/ton in Italy, 450 EUR/ton in the UK, and 450 EUR/ton in the UK. is 200 GBP/ton. Thanks to the application of taxes, plastic has been reused as a resource, thereby reducing the amount of plastic produced and released into the environment, as well as limiting the negative impact of plastic waste.

As for first-use royalties, European countries apply to raw materials such as sand, gravel and stone used in the construction industry. The policy of taxing first-use resources will stimulate resource use efficiency. France plans to reduce value added tax (VAT) to 5,5% instead of 20% on recycled materials, fine industries that do not comply with new standards, and continue to generate a lot of waste, damaging the environment.

Carbon tax is considered a market-based solution to reduce emissions. Adopting carbon tax will force business to analysis benefits and costs thereby adjusting excessive energy exploitation, use, and consumption. Subjects adopted to carbon tax are mainly fossil fuels such as gasoline, oil, methanol, naphtha, butane; liquefied petroleum gas; burning fuels such as peat, coal... The tax base is the amount of carbon emissions, calculated in tons of emissions. Tax rates can be tax rates based on percentage, absolute tax rate (absolute tax rate) or mixed tax rate (collected both by percentage and absolute tax rate). The carbon tax rate is about 1-130 USD/ton of CO_2.

Finland, Sweden, Norway, Denmark were the leading countries to apply carbon taxes in the early 1990s. Currently, many countries around the world (UK, Netherlands, USA, Canada...) Apply a carbon tax to reduce emissions. According to the Organization for Economic Cooperation and Development (OECD) (2015), carbon taxes have the effect of reducing greenhouse gas emissions, while also generating significant revenue for the national budget. Most East Asian countries could increase budget revenue by 0.5-2% of GDP in 2020 if they apply a tax of 20 USD/ton CO_2. This budget revenue is especially higher in developing countries due to high emissions relative to GDP.

b) Tax Incentives for Environmentally Friendly Economic Activities and Products

Many countries have applied tax incentive policies to encourage and promote investment in clean technology and effective use of alternative energy sources. Policy tools to achieve diverse goals include tax holidays, tax exemptions, tax liability reduction mechanisms, and additional cost reduction mechanisms. The United States provides a tax credit for renewable electricity generation for each kWh of electricity generated by renewable energy sources, such as wind power. In 2019, the deduction rate is 2.4 cents/kWh and the deduction period lasts 10 years from the time the electricity production facility is put into use. Facilities (using wind energy) that begin construction in 2016 receive a 100% tax deduction, decreasing to 80% in 2017, 60% in 2018, 40% in 2019 and 0% thereafter. Malaysia implements an 100% deduction of the capital costs incurred for a green technology project from the year of assessment 2013 to 2020 and a 100% deduction of the costs. capital incurred for green technology assets from 2013-2020 (support can be offset against 70% of statutory income in the year of assessment).

The Chinese government provides tax incentives for industrial activities to promote the development of the circular economy, encouraging the import of energy-saving machinery and equipment and raw materials. Businesses that meet the conditions can be exempted or refunded input value-added tax at a certain rate. For corporate income tax, if a business purchases and uses special equipment in the prescribed list for the purpose of environmental protection, energy and water saving, and safe production, the cost of purchasing the equipment can get a 10% income tax deduction. For businesses that use wastewater, exhaust gas and solid waste as main production materials, income tax can be reduced or exempted for a limited period, such as exemption for 3 years and 50% reduction for the next 3 years for with businesses treating wastewater and community waste, businesses innovating technology in energy conservation and emission reduction, seawater desalination and similar projects... Biodiesel production with animal waste and vegetable oil is exempted from consumption tax.

4.2.2 Green Public Spending Policy

In Europe, in the 2020 Circular Economy action plan, green public procurement becomes a mandatory criterion for green public expenditures in European Union (EU) countries. The Chinese government implemented the project “Building an environmentally friendly society”, issuing a series of policies to promote green purchasing. In 2005, the country also issued a number of instructions on “promoting the development of a reuse economy”, which emphasized that China needs to increase the use of products labeled as water saving, saving and using energy effectively, environmental labels, green food labels and green organic foods, reducing the use of products that use a lot of packaging and products that are only used once. In addition, all government agencies are required to practice green procurement.

Although countries in the Association of Southeast Asian Nations (ASEAN) region have not yet issued their own laws on green procurement, many governments have policies to encourage the development of sustainable consumption. The initial step in developing green shopping is implementing 3R (reuse, reduce, recycle) and eco-labelling. Japan enacted the Green Procurement Promotion Act in 2000, which applies to the Government, agencies, local authorities, businesses and people. This law encourages a shift in demand towards environmentally friendly goods.

4.2.3 Policy for Financial Markets

For sustainable and efficient use of resources, Japan encourages the issuance of green bonds to promote the development of environmental projects. In 2014, the Development Bank of Japan issued green bonds for the first time, with the number issued gradually increasing over the years. In 2017, the Ministry of Environment

announced green bond principles to ensure consistency with green bond principles issued by the ICMA audit organization. Green bonds are allowed to be traded on the stock exchange (Nguyen Thi Thu, 2020).

China uses the following policies: i) support for conversion costs: Enterprises converting from the traditional economic model to the digital economy model are supported with 10% of the conversion costs; ii) price policy: the State applies price policy to contribute to the conservation and orientation of organizations and individuals to save and use resources rationally. Accordingly, the authority applies restrictive pricing policies to restricted items in high resource consumption industries; iii) establishment of a Science and Technology Fund, which has the task of promoting the development of the circular economy. In addition, the Green Development Investment Fund (mobilized partly from socialization and partly from the state budget) is encourage and propagate circular business.

In addition, every year, two businesses with good environmental products will won scientific and technical awards. As of 2019, there are about 109 Chinese enterprises receiving support for transformation in production model. This shows that China's transition in policies have achieved significant success.

4.3 Lessons for Vietnam

4.3.1 Current Status of Fiscal Policy for Circular Business Model in Vietnam

In Vietnam, many elements of circular business model have been mentioned in the fields of clean technology with little waste, low consumption of raw materials and energy, encouragement of recycling, and use of recycled products. However, Vietnam has very few models that carry the full connotations of digital marketing, although in terms of goals and content, there have been models or business methods that have had the manifestations of this model since early on.

Legal regulations on circular business model have just appeared, are not synchronized and mainly focus on a number of environmental and energy saving areas. Regulations related to the financial sector (taxation, public spending) specifically related to the tourism industry are almost non-existent. The Government prioritizes public procurement and spending towards activities related to environmental protection, response to climate change and green growth. However, due to the limited potential of the state fund for circular economy, the ability to support interest rates or finance programs and projects is limited and has not met realistic expectations... In addition, the regulations for receiving fund for applying circular business models are still difficult, thus limiting businesses' access. Policies for financial market development for CBM face many barriers because this business direction is still considered a development option with many risks, making it difficult to attract investors.

The Government also issued incentives for environmental protection activities such as interest rate incentives; issue Vietnamese green bonds, government bonds, Government-guaranteed bonds and local government bonds that mobilize funds for irrigation, environmental protection, wind power, solar energy.

Although tax incentives and support policies have encouraged businesses, organizations and individuals to convert to the circular business model, in the short term, these policies are not enough to offset the costs of businesses when greening production. This is one of many difficulties for small and medium-sized enterprises that want to switch to eco-business, because green production orientation requires large investment capital. Industry needs to be optimized at the lowest level (Nguyen Hong Thang, 2021).

4.3.2 Some Proposed Solutions on Financial and Credit Policies for Circular Business

Research on experience in some countries shows that to encourage and support the business sector to successfully transition to a circular economy model, the following contents are needed:

Firstly, supplement and complete appropriate tax policies to encourage subjects to participate and convert to operating according to the model and principles of digital marketing (technology transfer tax, import-export tax,...). Review, amend and supplement the current tax and fee policy system, determine appropriate tax rates for preferential taxable goods to ensure consistency and transparency (environmental protection tax, natural resources tax, special consumption tax, export tax, environmental protection fees...). Reduce value added tax rates for products from circular business models.

Secondly, issue specific regulations on green public procurement or public procurement of products and services produced and provided from business models according to circular principles. Implement green public procurement or green public spending and green public investment. Green public procurement, in addition to protecting the environment, also creates demand in the green procurement market and green value chain for environmentally efficient products and services.

Thirdly, develop both depth and breadth of the financial market, including encouraging and supporting the formation of financial products to serve the transition from the traditional business model to circular business model. The legal framework for the development of the financial market needs to continue to be improved in the direction of creating conditions for international investors to invest more strongly in the Vietnamese stock market.

4. Conclusion

Currently, many countries such as Sweden, Finland, China, the Netherlands... have researched and developed fiscal policies for circular business model with many achievements. Recently, under pressure from corporate profits, resources have been overexploited, and environmental pollution has become increasingly serious. Therefore, the circular business model is an inevitable direction for Vietnamese businesses. In this way, production and business activities will ensure quality, efficiency, sustainability and environmental friendliness in the future.

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