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Introduction - three questions asked :

1. How is the current monetary system interlinked with grow dependency in the economy ?
2. What consequences does it have that money is created on business incentives ?
3. Does the current monetary system promote funding to extractive or polluting industries while restricting funding for green transition ?

   I will tackle these three questions in turn and briefly.

1. How is the current monetary system interlinked with growth dependency in the economy ?

1. A definition to start: what do we mean by growth dependency?
   a. It means the need of the economic system to sustain growth in order to thrive and to be socially and politically stable.
   b. Capitalism is such a system: stagnating capitalism is a crisis-capitalism with social and political troubles
   c. In the literature, this growth dependency is often referred to as the *growth imperative.*

2. Let me first answer the question by its opposite: How is the current monetary system NOT interlinked with growth dependency (or the growth imperative)?

   a. A common argument by some ecological economists:
      - Money is created as interest-bearing debt that is a credit
      - One must pay back the credit plus the interest but is lent only the principal (= the amount borrowed)
      - Therefore there is never enough money in the economy and new money must be continuously created
      - This is only economically sustainable if the wealth, that is GDP, continuously grows as well
      - Therefore the current monetary system create a growth imperative through the way money is created
      - This is unsustainable because it means ever increasing pressure on the environment
      - We should get rid of interest and debt-money (thus some advocate a full reserve banking system where banks cannot create money anymore)

   b. Why this argument is wrong? A post-Keynesian view

- Money is endogenous (endogenous: which comes from inside):
    - The supply of money is endogenously determined by the demand for credit expressed by credit-worthy agents (households, firms, state)
    - That is by the demand for money coming from the inside of the economy.
    - It means that the central bank does NOT control the quantity of money in the economy (it controls only the short-term interest rate)
- The agents borrow money to produce a good/service or to consume a good/service that is already produced
- This money circulates between agents: purchasers pay to sellers, firms and states pay to employees.
- Sellers and employees can then choose to pay back their debts. There is thus a reflux mechanism.
- Therefore, when money is created through credit, money is also destroyed through payment to the banks
- <u>If the economy reaches a stationary state where GDP does not grow anymore and prices remain constant, the existing stock of money corresponding to the existing level of GDP will be sufficient</u>
- Firms and households will not demand an additional stock of money to fulfill their needs.
- The quantity of money in the economy need not to increase if agents do not wish it to do so
- Trivial example: if one borrows to buy a house, one needs not to continuously increase their income to pay back the loan + the interests
- <u>The argument of the so-called monetary growth imperative stems from a confusion between stock and flows:</u>
    - <u>What has to remain constant is the stock, namely the debt (or quantity of money), but the flow, namely the interest payment, does not need to be set to zero to reach a non-growing economy.</u>
    - <u>Consequently debt-free money is not necessary either for a non-growing economy.</u>

3. So how is the current monetary system interlinked with growth dependency in the economy?

    - <u>Because it ***allows*** for growth to happen:</u> the rise in production takes shape in the mind of producers before money is created and is effectively realized when credit is granted and money is created to finance it (primary role of finance : to provide an anticipation on income before income is actually generated by the economic activity)
    - <u>But since money is endogenous it does not ***cause*** it</u>
    - <u>This gives however power to banks : since they create money, they can decide what is financed and what is not</u>
    - <u>What is at stake is not the monetary creation mechanism itself (interest-bearing debt)</u>
    - <u>It is the institutional context into which this money creation happens</u>

- <u>So the question is political rather than technical : Who should control the banks ? What is money creation used for ? What should it be used for ?</u>
- <u>This leads us to the second question : What consequences does it have that money is created on business incentives ?</u>

4. Before I move to the second question, let me very briefly tackle an implicit question here: if not from the monetary system, where does the growth imperative of capitalism come from ?
    - It can arise from many sources, but it is worth mentioning two of them : the wage-labour system and the market relationship
    - There are at the very roots of our economic system, namely capitalism
    - The wage-labour system :
        - Within capitalism, the main form of labour organization is the wage system
        - It creates a separation between producers (the workers) and the means of production (machines, computer, plants etc) as the former do not own the latter
        - The income generated has thus to be shared between the workers and the owners of the means of production (the capitalists)
        - This creates a structural distribution conflict that is more or less concrete and more or less violent depending on time and place and on the institutions existing to mediate it.
        - This income distribution conflict is only temporarily stabilized through the growth of the income of all social classes (producers/capitalist) that is through GDP growth
        - A growth imperative thus arises from the need to stabilize the distribution conflict between workers and capitalist
    - The market relationship :
        - Goods and services are produced not for one own used but to be sold on a market.
        - This is the commodity form of exchange that is the dominating form of exchange in our societies.
        - The need to sell commodities on a market creates competition between sellers.
        - Competition creates a need to grow because growing means controlling the market and reducing the uncertainty

2. What consequences does it have that money is created on business incentives?

1. <u>To tackle this question, I want to insist on one key characteristic of the current monetary (and financial) system : its orientation towards liquidity</u>
    - Liquidity :
        - The extent to which an asset (financial, i.e. a share or fixed, i.e. a machine in a plant) can be sold to retrieve cash
        - The interchangeability of assets and money
2. <u>Liquidity means privileging money and short-term to investment and long-term (remember Keynes preference for liquidity concept)</u>

3. It means that agents will be financed only if they can offer a profitability that matches a given norm, i.e. banks or shareholders expectations
4. Current profit norm is way above the economic reality (cf. graph examples)
5. What does it means for banks ?
    - Banks also have to comply to this liquidity dogma and profitability norm
    - Banks shifted from the « originate and hold » model to the « originate and distribute »
        - *Originate and hold* : long-term lending/borrowing relationships between banks and firms
            - Creation of money used for productive purposes
        - *Originate and distribute* : Banks securitize loans and sell these securities on the market to instantaneously retrieve their money
            - New credits are not new money but old money collected on financial market through the sale of securitized credits !
            - This drives unsustainability because:
                - Either banks will lend to anyone regardless of their solvability (i.e. sub-primes and ninja loans: *no income, no jobs, no assets*) => triggers financial crises
                - Or will lend only to agents that can offer a sufficient profitability (according to a given norm) => trigger economic stagnation and prevent useful but insufficiently profitable investment (according to the banks) to be financed (i.e. socially and environmentally useful)
                - Example (Oxfam France report) of the 6 biggest French banks:
                    - Between 2016 and 2017, they reduce their funding to renewables by 2 billion euros while increasing their funding to fossil fuels by… 2 billion euros
                    - When they give 1 euro to renewable energies, they give 8 euros to fossil fuels
                    - In 2016 and 2017, about 43 billions euro were granted to fossil fuels related activities while 12 were granted to renewables

6. **Replies to the 3rd question: Does the current monetary system promote funding to extractive or polluting industries while restricting funding for green transition ?**

7. What does it mean for firms?
    - Firms have to offer sufficient return on investment or return of equity to get funded by banks or shareholders
    - Shareholder model: shareholder value maximization
    - The firm must create value to distribute to the shareholders in the short-run
    - Firms shifted from a "retain and reinvest" model to a "downsize and distribute"
        - *Retain and reinvest*: profit generated is kept within the firm and reinvested in productive capital and innovation
            - Triggers economic development and technological progress (i.e. productivity gains or higher efficiency in resource use)

        - <u>*Downsize and distribute*: Compress wages, reduce the number of workers and distribute profits to shareholders</u>
            - <u>Triggers unemployment (so social instability), decreases productive investment and innovation capability</u>
            - <u>Assumption: it is a major impediment to an ecological transition because firms have less ability to shift towards more environment-friendly production processes</u>

8. Consequences of the liquidity-dominated monetary and financial system are:
    - Economic and financial turmoil
        - Monetary policy used to prevent the monetary and financial system to explode and to sustain the economy
        - <u>Monetary policy is NOT climate-neutral (Matikainen and al., 2017)</u>
            - <u>62% of ECB and 49% of BoE bond purchases concerns carbon-intensive sectors</u>
            - <u>Makes financing conditions of climate destroying activities better</u>
            - <u>**Also replies to the third question**</u>
    - <u>Plenty of socially and environmentally useful investment NOT financed</u>
    - <u>Innovation slowed down</u>
    - <u>Overall capacity to transit towards an ecological economic system is reduced</u>

Conclusion: What could be a sustainable monetary system?

- Money is not an ordinary asset or good:
    - It is a social relationship based on trust
    - That links together decentralized producers and consumers on a given space,
    - That settles debts
    - That allows for market and non-market activities to cohabitate
    - The monetary and financial system should reflect that
- <u>Extremely strongly regulated monetary and financial system</u>
- <u>Banks could be nationalized or put under the direct control of citizens (turned into a common)</u>
- <u>Retail and investment (=financial market) banking activities could be separated to avoid universal banks to profit from implicit public insurance when speculating on financial markets</u>
- <u>Banks could be reduced in size to prevent systemic (too-big-to-fail) banks to exist, i.e. forbidding useless and harmful structured finance activities and taxing balance sheets according to their composition and size</u>
- <u>Bank could be territory- and sector-focused to promote local development, innovation and emergence of key sectors for the ecological transition (examples of local and regional development banks, of sector specialized banks)</u>
- <u>Credit should be tightly regulated and directed to prevent lending to harmful activities and to promote useful activities</u>
- <u>Different interest rates could be applied to different kinds of investment</u>
- <u>Prudential regulation could differentiate between kinds of assets (i.e. loans to fossil vs non-fossil activities)</u>

- To be continued in the discussion…

Useful references that inspired my presentation and/or to dig deeper

Cahen-Fourot, L. and Lavoie, M. (2016) 'Ecological Monetary Economics: A Post-Keynesian Critique', *Ecological Economics*, **126**, 163–168.

Campiglio, E. (2016) 'Beyond Carbon Pricing: The Role of Banking and Monetary Policy in Financing the Transition to a Low-Carbon Economy', *Ecological Economics*, **121**, 220–230.

Campiglio, E., Dafermos, Y., Monnin, P., Ryan-Collins, J., Schotten, G. and Tanaka, M. (2018) 'Climate Change Challenges for Central Banks and Financial Regulators', *Nature Climate Change*, **8**, 462.

Dittmer, K. (2015) '100 Percent Reserve Banking: A Critical Review of Green Perspectives', *Ecological Economics*, **109**, 9–16.

Fantacci, L. (2013) 'Why Banks Do What They Do. How the Monetary System Affects Banking Activity', *Accounting, Economics and Law*, **3**.

Guttmann, R. (2016) *Finance-Led Capitalism: Shadow Banking, Re-Regulation, and the Future of Global Markets*, Palgrave Macmillan.

Guttmann, R. (2018) *Eco-Capitalism. Carbon Money, Climate Finance and Sustainable Development*, New York, NY, Springer Berlin Heidelberg.

Kovacic, Z., Spanò, M., Piano, S. L. and Sorman, A. H. (2017) 'Finance, Energy and the Decoupling: An Empirical Study', *Journal of Evolutionary Economics*, 1–26.

Lazonick, W. and O'Sullivan, M. (2000) 'Maximizing Shareholder Value: A New Ideology for Corporate Governance', *Economy and Society*, **29**, 13–35.

Matikainen, S., Campiglio, E. and Zenghelis, D. (2017) 'The Climate Impact of Quantitative Easing', *Grantham Research Institute on Climate and the Environment Policy Paper*, 36.

Røpke, I. (2017) 'Sustainability and the Governance of the Financial System: What Role for Full Reserve Banking?', *Environmental Policy and Governance*, **27**, 177–192.

Schandl, H., Fischer-Kowalski, M., West, J., Giljum, S., Dittrich, M., Eisenmenger, N., Geschke, A., Lieber, M., Wieland, H., Schaffartzik, A., Krausmann, F., Gierlinger, S., Hosking, K., Lenzen, M., Tanikawa, H., Miatto, A. and Fishman, T. (2017) 'Global Material Flows and Resource Productivity: Forty Years of Evidence', *Journal of Industrial Ecology*, **00**.