

specific goods away, which he wanted to buy, e.g., to later resell them at a higher profit.

Most moments of our discussion of the transformation of predator-prey-interdependencies during social, economic and political evolution, which we now conclude, are, as such, not new in substance. Yet it allows us to conceive of $C-M-C'$ and of $M-C-M'$ as a bond or type of entanglement in capitalism, which has been inherited from social biology and only been transformed. $C-M-C'$ and $M-C-M'$, in particular the latter, may be something like the Lotka-Volterra-Formula of capitalism.

Section 2. The productive and the sterile economy

As stated, this book assigns a great importance to the distinction between a sterile wealth economy and a productive economy. With this distinction we first refer to intuitions that everybody already has – even if based, at the moment, on too simplifying abstractions. We shall leave it that way for the time being and only later make comments about how the flows of the two economies have to be separated more cleanly. The reader is asked to follow the argument with that in mind.⁵⁸

Today, probably most people feel that the productive economy is the “rule” and the sterile economy is the “exception” in capitalism. From a wealth owners’ perspective, and to better understand what really goes on, it may make sense to turn this around. Renting out land, giving land to feudal vassals for a share of the harvest, making loans to generate interest, or equipping firms with equity for a share of the profit has been the first and preferred way to draw revenues for millennia; these revenues are sterile revenues, though. Productive activity, on the contrary, inventing a new technology, discovering markets, engineering production, building factories, employing workers, mass-producing something, etc. appeared artificial and unnecessarily complicated and burdensome to many wealth owners. You had to understand something about a lot of things, show focus, intelligence, competence, organization, endurance, resilience, recklessness, *and* needed a good deal of luck in the productive economy – and all of this only to turn money you already had into (often many and tiny) claims against customers, whose sum, if you could collect it, would hopefully exceed that which you had possessed previously. The productive economy, may, thus, more properly be seen as a series of exceptional expeditions, a rare and risky activity for the particularly braves and merchant heroes, like war times compared to peace times.

58 The later delineation will show that what at first glance appears to typically belong into the sterile wealth economy has almost always a component of productive spending, and that what appears to typically belong in the productive economy also almost always has a sterile component. See on page 123 et seq. and 351 et seq.

The wealth economy: Sterile revenues and sterile spending

Wealth owners make use of this their owner power, which states secure through the rule of law, in an evolved and civilized stage of society, by using their ownership of money, real estate, and other wealth to draw revenues. The wealth economy consists in drawing recurring income from wealth assets in product markets and from buying and selling assets with capital gains in asset markets. The sterile wealth owners' only job, as sterile wealth owners (not as business manager or philanthropist), involves overseeing this and occasionally making changes to their portfolio.

Imagine you had grown up in a wealthy family. You learned about the existence of foreign countries and other cities by learning about the wealth that your family owned there: Twenty hotels in Europe, a glamorous and famous department store in Barcelona, a series of apartment buildings in Ottawa and Toronto, a significant stock holding in a car manufacturer in the US and, of course, your family offices in New York and London taking care of a large portfolio of bonds, stock, and real estate. You would have learned that your family receives ongoing payments from these investments; on occasion, you would visit some of the hotels as a privileged guest and, as you became a teenager, you would sometimes be invited to join meetings in which people report to your family about the status of the investments. At times, consultants would advise your parents to sell an investment and to buy a new one, e.g., after your uncle who spoke Spanish and had lived in Barcelona had passed away. When you once proposed that all hotels should have tennis courts, your mother would smile at you and say "leave that to the people who understand something about it." You and your parents would not have to deal with suppliers or customers of your family's possessions, not have to get up early and to drive, not even in a limousine with a chauffeur, through polluted, noisy, and crowded roads to factories at the outskirts of ugly cities. You would also not have to deal with blue collar workers or other employees; indeed, you would mostly not even deal with those who do deal with them.⁵⁹ You would, hence, grow up looking at the wealth economy from a "*family office perspective*". Note this is a story *above* the "City perspective" or "Wall Street perspective" taken by Keynes or Minsky⁶⁰ as it includes asset classes not even traded in the London City or on Wallstreet. All sterile revenues flow to wealth owners; they arrive at what we shall call their "*sterile arrival port*". The main sub-categories of sterile revenues in the wealth economy, in product, and asset markets, are:

59 Of course, many young men and women who are lucky to be born in a wealthy family take pride in learning some trade from scratch.

60 Minsky (1975) page 55, 70.

Sterile wealth owners' sterile debt revenues

Debt enables the simplification of M–C–M'-investments into M–M'-investments, the shortest way to generate income out of existing wealth. Once you own debt, you normally need to not do anything more to increase your wealth, but to collect the debt service (interest payments and repayment of the principal) on the agreed dates in the agreed amounts.

Social obligations played an important role in early and innocent primitive societies, before money and profit emerged. Fathers wished to have as many sons as possible because sons “owed” – on the basis of an order of custom, not on law or contract, hence, in a mythical or traditional sense – them to work for them and to maintain them in their (short) old age. Such social obligations were superseded and re-shaped by law and their contents changed in more advanced ancient social structures with proto-states or central states.⁶¹ We saw that it became a perfectly accepted method to make war on neighbors, to subjugate them and to draw tributes from them. The most “signature debt” of antiquity, though, was internal: It was the debt of small farmers to local grandees or to grand merchants. The smaller and poorer their land, the worse their equipment, the less they could self-insure against the risks of agriculture, the more they had to take on such debt. Or if the state insisted on collecting taxes in money, small peasants would be forced to take out loans, thereby losing a smaller or exorbitant part of its value as interest.⁶² Almost everything could drive them into their creditors' arms. If bad weather hit or only a daughter was to marry, then they needed money to finance the time until the next harvest, to purchase seed or to provide a dowry.

This kind of debt, in fact, became infamously brutal in the early profit economies of the “Axial Age”, e.g., in Greece, Rome, and China. The creditors of such loans did not need to worry about whether the loan and interest could be repaid, as long as they could execute in the land, animals, tools, or even in family members of their farmer-debtors, e.g., by selling them or their daughters into slavery. In the Middle Ages, with the dominance of great religions – Christianity, Islam, and Buddhism – and feudal structures, through usury laws and personal bonds of feudalism, the situation became more bearable (as we already saw). *David Graeber* writes: “Yet for most of the earth's inhabitants, it (the Middle Ages) could only be seen as an extraordinary improvement over the terrors of the ‘Axial Age’.” Tougher practices remerged only with upcoming capitalism, the abolition of usury laws, abstract private property and with Protestantism (in Europe).⁶³ Still, just as in farmers' monetary debt, feudal bondage conveyed sterile revenues.

61 See *Diamond* (1971) pages 42–72.

62 *Sadao*, The economic and social history of former Han, page 600 et seq. Or they would sell their produce at a disadvantageous price to them.

63 *Graeber* (2011) page 250; see also pages 210 and 250 et seqs.

Sovereign debt emerged as a new type of debt with central states. It either came into being to finance luxury desires of groups courted by the reigning dynasty or because sovereigns had to finance wars. It was a great means to finance the 500 years of fighting between the new-born countries to establish their supremacy in Europe, after the Middle Ages.⁶⁴ Sovereign debt emerged in Renaissance North Italian city states. The Holy Roman Empire of the German Nation of Charles V soon followed suit. At first, the loans were paid out in commodity money, silver or gold, by the wealth-owning merchant families, the Medici in Florence or the Fugger in Augsburg. Later the Spanish wealth elite followed, who – to the extent they had not already wasted their riches – supported the Spanish emperors against the Netherlands and Great Britain. Other great merchants and bankers stood behind the warring parties of the Thirty Years War, Louis XIV, and the British, who had become rich with their colonial possessions, and who also partially debt-financed the wars to defend and extend their possessions. The amounts of money needed, and the sovereign indebtedness, grew from war to war. What the English colonial merchants, manufacturers, or factory owners had to lent out to finance the British army in the American Independence War was far less than what the subsequent Napoleonic wars would cost;⁶⁵ a further rise came with the arrival of the states of the second wave of capitalist development, the US, Germany, Japan, Austria, Russia, etc. through their wars, the US civil war, the Crimean war, the German unification wars, World War I, and World War II.

The worth behind state debt was not so much the present assets of the state, or of their populations, but the future flow of assessable taxes and other contributions – basically the same worth which is behind tribute debt of subjugated tribes or states. However, while the subjugated only work obstinately, avoid tribute payments where possible, and throw liberation wars from time to time, state citizens normally

64 See *Kennedy* (1987). The rivalry between a significant number of units in Europe with the financial and military means to maintain their independence (page 55), fewer impediments than elsewhere and others opening the door wide, e.g., China and Japan by withdrawing from sailing the oceans in 1433 in 1636, allowed these European units to compete for the top of the world. Doing so, they pushed military technology and financial practices to their limits, resulting in frequent old-fashioned over indebtedness and illiquidity of states, but also in the invention of new financial practices of state financing. These included not only the obvious robbing and mining of silver and gold, particularly by the Spaniards in South America between 1560 and the late 1630s or the confiscation of church or other land, including under false accusations, e.g., by *Cromwell* in England in 1530 (page 110), but also serious modernizations, such as putting the tax system into order by *Sully* under *Henri IV.* in the early 17th century in France (page 122), or in England around the Napoleonic wars (page 138, 212), setting up an early sovereign debt market in Amsterdam or England the early 17th century (page 123) or with the foundation of the Bank of England in 1694 (page 139–141).

65 *Ferguson* (2008) page 70 et seq. "Without wars", Ferguson writes, "nineteenth-century states would have little needs to issue bonds" (page 92).

pay their own state's taxes more willingly and states are better at executing tax debt against their own subjects.

Initially, when a king called the feudal lords and great merchants to make financial contributions, they primarily acquiesced with the motive to support their sovereign's cause. They did so if the war was in their interest and/or as they, e.g., in the case of the Fugger, intended to use the loans to gain political influence over their sovereign. Soon, though, the financial investment motive split away from other motives and wealth owners would simply "invest" in war financing, including by making loans to or by buying debt from their countries' enemies (as arms manufacturers would sometimes supply both sides of a war). In the 20th century, sovereign debt evolved from an exceptional means of war financing to a more regular means by which to also finance infra structural, social policies, and prosthetics, i.e., macro-economic policies. Sovereign debt, since, also finances roads, ports, airports, canals, protection against natural catastrophes, education, and social transfers.

The opportunities to invest in debt rose with the growth of corporations (corporate debt is like a war bond on success in business) and, later, even extended into small household debt (housing debt, student loans, automobile debt, other consumer utilities debt, subsistence debt, e.g., credit cards debt), which became available at large scale. They can also be re-packaged and structured, collateralized, and be protected by insurances, e.g., credit default swaps. Today, debt includes not only bonds, but also options, futures, and certain derivatives.⁶⁶ Debt investments got more abundant with private bank credit money creation and state fiat money creation. Creditors no longer had to lay out scarce gold or silver to debtors but they could at least partly use fractional reserves bank credit money creation.

66 Many people find it difficult to understand debt. If they had wealth, they think, they would not give it away and expose it to the risk of not being repaid. They would rather keep it safe or invest it in a venture, which they could control, themselves. Apart from seriously wealthy people simply not having the time to invest all their wealth themselves, there are several other errors in this. First, all wealth, not just debt, is always at risk. Land was often exhausted, destroyed by natural catastrophes or wars (in recent times polluted), expropriated, or it lost value because nobody would pay rent. Businesses may go bankrupt or may also be expropriated. Money held in banks may be lost if banks go bust; paper money hoarded in safes at home may be robbed, be burned, or lose its value in inflations or currency reforms. Furthermore, in fact, most debt is less risky than people believe. If a wealth owner buys a stock and the corporation falls into bankruptcy, then the investment is lost, if the wealth owner loans the money to somebody who buys the stock with the loan, then the wealth owner at least still has a claim for repayment against the debtor *in persona*. Furthermore, many loans – e.g., real estate loans of banks – are against additional collateral. In this case, creditors need not worry too much about the business merits of the intended investment or about the general solvency of the debtor, but only need to watch the value of the collateral. After all, wealth owners are not mistaken if they continue to do what they have done for millennia – loan out money.

Sterile wealth owners' sterile rent revenues

The second asset class encompasses revenues from allowing the use of real estate. Real estate encompasses naked land and land with buildings and other structures on it or only such buildings or structures. Rent is for real estate what interest is for loaned money; the debtor has to repay the principal of the loan on top and the tenant has to return the rented real estate on top of paying rent. Rent revenues or spending flow into product markets for consumptive and investive purposes.

Land is, normally, not produced. That is different only if new islands are built, e.g., in Dubai, if cost lines are extended, or if land has been destroyed by flooding, volcano eruption or chemical, nuclear or other waste before. Under the *conditio humana*, land, which provides a resistant surface and keeps you from sinking away, is needed underneath every activity. "Mother earth" is the *causa causans*, the *conditio sine qua non* of human existence. It is needed for simply being around, eating, sleeping, consuming, and relaxing, but also for all investive activities, e.g., artisans' ateliers, shops, agriculture, factory production, even asset administration. The ground's specific physical properties (allowing to grow rice or for foresting or pasturage) or what is underneath the land (raw materials, coal, oil, gas, precious metals) may enable additional value attributions. Land is a rather robust asset, destructible only in few situations (losses to oceans, rivers, volcanic activity, atomic pollution). As it cannot be carried away or hidden, it is easy to recover if somebody has taken it away from you (by expropriation or by illegal force). You only need to build up sufficient strength to reconquer it, e.g., by finding allies or in a political restauration. Land can be used as a factor of production by the owner directly by employing laborers, dependent peasants or slaves on it who produce something to be sold. However, owners only use a small part themselves and lease out the largest part for rent. That was a big thing in history as renting land became the means of survival for otherwise property-less farmers; it sometimes even allowed them to prosper. Self-employed artisans also rented shops; they were smaller in square meters but were situated in more expensive neighborhoods, closer to centers of villages, towns, or city centers. Land and buildings were later rented to manufacture and factory operators. More recently, urban land became great to rent out as office space to service firms or as dwelling, including even to workers. Its value depends on its rent-generating capacity, which in turn depends on the higher or lower profitability of businesses, for which it is used, or of the incomes of the people who want to live there and on what they can spend.

Sterile wealth owners' sterile profit revenues

Firms, entrepreneurs, or capitalists that produce goods and services through a combination of money, land, labor, etc., realize employment-generating revenues and profits in product markets. They pay interest to creditors and repay, eventually, the principal to them for their invested borrowed capital. For their equity capital, they

pay ongoing profits and, at some time or other, liquidation surpluses. Instead of liquidation, equity owners may also sell businesses in M&A or on the stock market. If a business is run as a sole proprietorship, then the sole proprietor pockets the profits, liquidation surpluses, or sales prices. There is only one legal entity and no transfer of profits between legal entities is necessary. If, as more commonly occurs, the business is run as a separate legal entity, e.g., a limited liability company or stock corporation, then the equity providing wealth owner draws the profits through a legal transfer of dividends, of a liquidation surplus, or through collecting sales prices for shares.

While the firms' original M' -revenues in product markets, and their profits as a part of these revenues ($M'-M$), were productive as money had been spent productively in their expectation, the "transfer" of the dividends and of liquidations surpluses, based on equity contracts, is no longer an employment-generating spending. The opposite view would mislead us into falsely counting employment-generating revenues and profits, which have already been counted at the level of the equity-using firms, twice.

Sterile wealth owners' sterile asset sales revenues

We have already seen that what enables profit in product markets, assets, can also be sold. Since, people have learned to intellectually recognize a capacity to generate future surpluses as itself being a value-in-exchange (valued in the amount of its present value) and to practically transfer it (after proper legal techniques have been invented for this purpose), wealth owners have acquired an additional option to realize sterile profits, by "exiting" an investment in an asset through selling the asset.⁶⁷

The productive economy: Productive revenues and spending

Most people identify capitalism with the age of industry, technology, and mass production. We prefer to consider capitalism as generally using owner power to draw profits in $M-C-M'$ -circuits, irrespective of whether commodities are produced, industrially or otherwise, or whether sterile profits are generated. Still, it remains true that capitalism has unleashed an enormous explosion in production that has led to a productive economy of a hitherto unknown power.

67 There is other sterile spending, e.g., on renting mobiles, paying license fees for patents, or other intellectual property rights, e.g., in software, music or movies or on commodities (such gold, silver, copper, platinum, other precious metals, rare earths, grains, pig halves, art, jewels, classic cars, antiques and foreign exchange. Often, the commodities traded possess the character of assets in assets markets but they can, like pig halves, grains, copper, or antiques, swapped into productive investment or consumption.

Productive wealth owners' employment-generating consumptive revenues

Quesnay put his "*classe des propriétaires*" at the top of his tableau. The reason for this cannot possibly have been on the basis of their productive output, given that they produce nothing; it may have been because of their rank in a stratified society or it may have been because of their crucial role as the "big" consumptive spender in Quesnay's tableau. The *cl. des propriétaires*, in fact, saved Quesnay's royaume agricole and allowed the productive circuits in his tableau to close.

Not only do they consume *more* units (number of goods, liters, kilograms) *per capita*, but they also consume the up-market share, the top agricultural products, the best vines, the most delicious pieces of calves and pigs, the fattest ducks, the largest chicken and the tastiest tomatoes and apples, the finest silk, teas and spices, which end up in in their pantries, wine cellars, kitchens, and on their tables. Wealth owners have the most beautiful houses, and attract and employ the best architects, bricklayers, carpenters, painters, and artists and buy the most comfortable and stylish furniture. They hire the most intelligent philosophers and teachers for their kids, the best golf-professionals, and have the prettier housemaids, more pleasant and better menial servants, and the most attractive courtesans and boys for erotic pleasures. They also typically pay higher unit prices; accordingly; after all, their relative per capita contribution to consumptive employment-generating spending is much higher than of the remainder of the population.

Already ancient and medieval farmers, merchants, artisans, servants, courtesans, and entertainers, if they could, turned to the castles, country estates, monasteries, and clergy, whether Christian, Islamic, or Buddhist, and to the courts of princes, kings, and emperors in order to sell their goods and services. It was the wealth owners' desire for luxury, which led to inventing these products, induced their manufacturing and created trade systems to distribute them. Thus, merchant adventurers, shipping companies, transport agents, storehouse keepers, customs collectors, the captains and sailor on the ships, and the camel owners and their staff of caravans, bankers, and lawyers, who facilitated the trade, and even the pub and hotel owners, doctors, haircutters, and prostitutes along the lines of far-distance luxury trade also received their livelihood through wealth owners' luxury consumption; many cities along the caravan routes to Egypt, at the Silk Road and the cities of the Hanseatic League and ports in Oman or at the naval lines between the Americas, Spain, Portugal, France, the Netherlands, and Britain owe their very existence mainly to luxury trade. The same applies to others, with whom the readers would not like to change places, to toilers in diamond, gold, silver, and marble mines or even slaves in plantations for tea, coffee, spice, and opium etc. Quesnay still exaggerated: Wealth owners do consume a lot, but they unfortunately do not consume enough to close the productive circuits of capitalism; still, they deserve praise for

their important contribution to circuit closure through their consumption (if you wish: from Marx's department II.a.).⁶⁸

We do not have to worry about the financing of wealth owners' consumption. They sit on stores of wealth and their consumption is very resilient. They will still be able to finance their consumption long after the economy has fallen on hard times. If the wealth of an individual wealth owner is ever exhausted, which happens from time to time of course, he simply drops into the workers' class and others take over.

Other than from wealth owners, consumptive employment-generating spending to firms can only come workers (firms do not consume). While, workers do not appear in Quesnay's model or the household-firms-model of mainstreams economics, they are, nevertheless, the class of the greatest majority of mankind with significant consumption needs for food, health, and other services and with a significant contribution to employment-generating consumptive spending. As they no longer own land, they cannot directly sustain themselves from nature, and as they own nothing else instead, they cannot generate income via investment either. Their survival and prosperity – the modern social master drama – thus, solely depends upon their being employed in firms' first M–C-leg and upon being paid salaries.⁶⁹ As others, e.g., Marx and Kalecki, have observed before us, workers are very reliant as consumers because they spend all of their salaries. We shall be able to uphold this principle even with top earning CEOs, employed lawyers, etc., as we shall split them into workers, who consume all of their workers' salaries, and wealth owners who invest them or who spend a part on more luxurious wealth owners' consumption.

Wealth owners and workers consumption is largely productive, but also contains splitters or components of sterile spending, e.g., purchase prices for old countryside castles, rent for dwelling, or workers' consumptive debt service.

Productive wealth owners' employment-generating investive revenues

Firms buy from firms to make profits (M–C) and, thereby, enable other firms to close their circuits and to realize profits (C–M'). If this spending is productive, then firms receive employment-generating investive revenues. These revenues consist of purchases of equipment and inventories. Some splitters or components of purchases of equipment and inventories, e.g., of naked land, may be sterile.

68 See the discussion of the reproduction schemes on page 271 et seq.

69 Transfer payments are only considered later.