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CONSUMPTION AND ECONOMIC GROWTH
IN THE
FRAMEWORK OF CLASSICAL ECONOMICS

BY

ALEX M. THOMAS

A thesis submitted in fulfilment of
the requirements for the degree of
Doctor of Philosophy

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STATEMENT OF ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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ABSTRACT

This thesis is first and foremost an exploration of classical economics with consumption as its focus. It is the latter which distinguishes the present work from the already existing and growing literature on classical economics. The distinctive nature of the theory of value and distribution and the theory of activity levels and growth in classical economics and Marx is analysed and interpreted in chapters 2 to 9, which deal respectively with Cantillon, Quesnay, Turgot, Steuart, Smith, Ricardo, Sismondi and Malthus. The analytical separability between the theory of value and distribution and the theory of activity levels and growth emerges clearly in these chapters.

The development of the role of consumption in economic growth, within the classical theoretical framework, particularly from Sismondi and Malthus, is then traced through Marx, Luxemburg and Kalecki – Marx and Luxemburg in particular working within that classical framework. Hence, the thesis we put forward is that the problem of demand insufficiency present in classical economics and Marx, but not satisfactorily formulated or theorized, finds an analytical resolution in Kalecki, via Luxemburg, independent of Keynes.

Both Kalecki and Keynes articulate clearly the coordination mechanism between planned saving and planned investment which occurs via changes in aggregate activity levels. In classical economics, most notably in Smith and Ricardo, planned saving is one and the same as planned investment (our latter-day terms); but this assumption is untenable in any economy where saving and investment decisions are decentralised. Finally, in chapter 12, a simple demand-led growth model is presented. Consumption, especially autonomous consumption, is shown to play a decisive role. The last section of the chapter notes the affinities between classical economics and demand-led growth. This reflective section affirms the enduring relevance of the theoretical framework of the classical economists and Marx.
CHAPTER 1

Introduction

The purpose of this study is to elucidate the role of demand, in particular, consumption demand, in the determination of activity levels and economic growth in classical economics. Mainstream growth theory, built on two fundamental marginalist principles – the marginal productivity theory and the rate of interest as the equilibrator of planned saving and investment – possesses no autonomous role for demand because demand adapts to supply. However, classical economics, an alternative to marginalist economics, which is built on a very different organising principle – the surplus approach to value and distribution – is open to the possibility of demand as determining activity levels and economic growth. This thesis therefore contributes to the research programme which seeks to incorporate the theory of demand-determined activity levels into the framework of classical economics. Notable contributions to this programme of research are Garegnani (1978; 1992), Eatwell & Milgate (1983), Kurz (1985) and Serrano (1995), of which the Garegnani articles are the seminal ones (see Aspromourgos 2004: 187, 189-90 for a succinct and comprehensive survey of this research programme).

It is Karl Marx who coined the phrase ‘classical political economy’ on noticing a similarity in the scientific approach of economists such as William Petty, Richard Cantillon, François Quesnay, Adam Smith all the way up to David Ricardo and J.-C.-L.- Sismondi (Marx 1970: 52). The key classical economists examined in this study are Cantillon, Quesnay, Anne Robert Jacques Turgot, James Steuart, Smith, Thomas Robert Malthus, Ricardo, Sismondi and Marx at whose hands classical economics can be said to have received its most mature treatment.

What constitutes the surplus approach to value and distribution? Normal prices or long-run equilibrium prices (value) is determined by relatively permanent factors vis-à-vis market prices which are determined by transitory factors. Concomitant to the determination of prices is the distribution of surplus (that part of aggregate output which is in excess of replacement requirements of the economic system) between the capitalists and workers (and also landowners). The real wages of workers in classical economics are determined by social and political factors. As long as the output produced is in excess of
replacement requirements, a surplus exists. For the surplus to be distributed, the surplus has to be realized by way of a sufficient demand, either consumption or investment demand. Otherwise, the produced commodities will not be entirely sold and the volume of output in the next period of production will fall. This circular relationship between production and consumption is an important characteristic of classical economics, and is encapsulated by the notion of the circular flow. To state the same objects of enquiry differently, classical economics studies the factors affecting the production, realization and distribution of the surplus.

After Marx, up until the time of Piero Sraffa, the surplus approach to value and distribution was ‘submerged and forgotten’ (to borrow Sraffa’s phrase); it is during this period that marginalist economics emerged as the dominant economic theory and still continues to do so. The surplus approach to value and distribution was revived in 1960 with the publication of Sraffa’s *Production of Commodities by Means of Commodities*. After Sraffa’s revival of classical economics in 1960 and further work done particularly by Pierangelo Garegnani (in the 1960s in Italian and later translated and published in English) in clarifying its fundamental features, the surplus approach to value and distribution has been revived. It has become clear that given the size and composition of output, the methods of production and one distributive variable (the real wage or the rate of profit), long-run relative prices and the other distributive variable can be determined. For a thorough and extensive treatment of the theory of production and distribution in the framework of classical economics, see Kurz & Salvadori 1995.

How are activity levels determined in the classical economists? Earlier, mention was made of the notion of circular flow found in classical economics and also the related idea of the realization of the surplus. A close examination of these two concepts provides us with a clear picture of their theory of activity levels. From Cantillon to Steuart, activity levels are determined by aggregate demand, as evident from their discussion of the circular flow and the detrimental effects of leakages. A very special assumption is found in Smith and Ricardo, namely, planned saving is one and the same as planned investment. Therefore, in Smith and Ricardo, abstaining from consumption immediately translates into investment. And consequently, their theory of activity levels is supply driven although at various instances they acknowledge the constraint posed by demand (see sections 6.4 and
7.4 particularly). In contrast, Malthus, Sismondi and Marx recognise the constraints posed by demand and in their account, activity levels can be said to be unequivocally demand determined.

Chapters 2 to 10 deal with the economics (in particular, the theory of value and distribution and the theory of activity levels and growth) of Cantillon, Quesnay, Turgot, Steuart, Smith, Ricardo, Sismondi, Malthus and Marx respectively. In Cantillon, Quesnay and Steuart, the rate of profit is not well understood and does not occupy a permanent part of long-run normal prices. Although profits form the source of capital accumulation in Quesnay, he is not able to successfully theorize the rate of profits as part of equilibrium prices (section 3.2). For Turgot, Smith, Ricardo, Sismondi, Malthus and Marx, the rate of profit is a necessary component of long-run equilibrium prices. It is to be noted that in their economics, in stark contrast to marginalist economics, there is no simultaneous and symmetrical determination of prices and quantities of all commodities and all factors of production.

Perhaps due to the classical economists’ view of the economy as a circular flow, Cantillon, and more emphatically, Quesnay, write about the need to have sufficient demand (or consumption) in order for uninterrupted production to take place. For Cantillon, it is landlords’ autonomous consumption (our latter-day terms) that exerts a decisive influence on activity levels; so is it in Quesnay. Turgot notes the importance of adequate consumption in ensuring reproduction. Steuart identifies the role of demand with respect to inter-sectoral activity levels but the solution to determining overall activity levels is unclear. Smith recognises the importance of the size of the market as imposing a limit on capital accumulation, but he does not systematically link the issue of demand with his theory of economic growth. In Smith, a positive net saving (which by way of his special assumption is equal to net investment) is sufficient for economic growth. Ricardo too possesses the very same special assumption and therefore he posits that ‘demand is only limited by production’. However, he, like all other classical economists does recognise the common presence of unemployed labour. Sismondi points out that aggregate output requires validation by aggregate demand; if aggregate demand falls short of aggregate output, aggregate activity levels contract. Marx’s account of the problem of aggregate demand insufficiency encompasses almost all the classical economists’ views on the same
– he discusses hoarding and leakages, the role of demand and also talks of an inter-sectoral equilibrium of activity levels (similar to the balancing proportion or ratio between productive and unproductive labour which Sismondi and Malthus try to identify). We therefore find a culmination of several theoretical issues pertaining to the determination of activity levels and economic growth in Marx. The core argument can be summarised as follows: the gap between the value of output and real wages (and consumption out of non-wage income) is always and exactly filled up by investment demand in Smith and Ricardo. However, Sismondi, Malthus and Marx argue that investment demand may not be sufficient to fill that gap.

Rosa Luxemburg’s *Accumulation of Capital* published in 1913 draws from the work of Marx. In this, she clearly identifies the existence of a gap between the value of output and workers’ consumption in a capitalist economy thereby articulating the possibility of aggregate demand deficiency (section 11.2). This gap, she argues, is often filled up by a foreign trade surplus and/or public spending (military spending in particular). In 1933, with strong influences from Marx and Luxemburg, Michał Kalecki develops his theory of activity levels and employment, in which his theory of profits plays a crucial role. The realization of profits in Kalecki depends on gross accumulation and capitalists’ consumption (and net government spending) in a closed economy framework.

In 1933, Kalecki and in 1936, John Maynard Keynes independently discover the principle of effective demand – a theory wherein activity levels are demand determined. According to Kalecki and Keynes, activity levels are determined by autonomous demands plus induced demands, the latter being those elements of aggregate demand that are a function of current incomes and the former not a function of current incomes; that is aggregate supply adapts to aggregate demand. Or, in saving and investment terms, investment determines saving via the determination of activity levels (via the multiplier). When planned saving is greater than planned investment, income and activity levels fall (due to inadequate aggregate demand) until saving and investment are equal. One pertinent conclusion generated by this theory is that there are no persistent forces in a competitive economy which result in the full employment of labour. Therefore, unemployment presents itself as a substantial policy problem.
This gap between output and real wages, and the filling of this gap in Marx, Luxemburg and Kalecki is closely analogous and analytically similar to Keynes’s saving gap. For in Keynes’s theory, for any hypothetical increase in income, the associated increase in aggregate output will not be validated by the increased aggregate demand unless something else fills the gap between the change in income and change in consumption. This ‘something else’ is investment in Keynes’s account. From the results of the historical investigation presented in chapters 2 to 10, it will be clear that the problem of demand is present in various forms within classical economics and in Marx. Thus, in Chapter 11, I argue that the problem of demand deficiency, so to speak – or equivalently, the question of aggregate demand sufficiency – organically grew out of classical economics and that it is Luxemburg’s work which acts as the bridge between classical economics, Marx and Kalecki.

According to the principle of effective demand, aggregate supply is brought into equilibrium with aggregate demand through changes in activity levels. That is, an increase in aggregate demand, via changes in activity levels, brings about an equivalent amount of aggregate supply. To put it differently, what is it that fills the gap between output and consumption – or real wages, to the extent that aggregate real wages dominate aggregate consumption demand – such that aggregate supply equals aggregate demand? In this thesis, we call this the Keynes question. Kalecki’s answer is that the gap is filled by capitalists’ consumption and investment. For Keynes, the gap is filled by investment primarily. The dynamic version of the Keynes question can be stated as follows: what mechanisms ensure that the growth in capacity will be validated by an equivalent growth in demand? Both Kalecki and Keynes do not address the dynamic question as they assume a given level of productive capacity (section 11.4).

For both Kalecki and Keynes, aggregate supply is brought into line with aggregate demand through changes in activity levels. In marginalist economics, aggregate supply, given sufficient time for competitive forces to work themselves out, always creates a corresponding aggregate demand (and investment adapts to full-employment saving via, in particular, a sufficiently sensitive rate of interest serving as the equilibrator) and thus the problem of aggregate demand deficiency does not arise. In the following chapters, we
pose the Keynes question to the classical economists and Marx. What is it that fills the gap between output and real wages in the classical economists and Marx?

In complete contrast to marginalist economics, all classical economists, Smith and Ricardo included, note that there are no tendencies in a competitive economy towards the full employment of labour. Furthermore, as asserted previously and as the following chapters will clarify, all the classical economists recognise that demand poses a constraint, albeit in varying degrees, on activity levels. While the *possibility* is contained in classical economics as particularly evident in Sismondi, Malthus and Marx, the special assumption (that planned saving is one and the same as planned investment) present in Smith and Ricardo particularly eliminates the problem of demand deficiency in their economics. Consequently, the growth theories of both Smith and Ricardo can be said to be supply driven. Nevertheless, the surplus approach to value and distribution in classical economics does not entail the special assumption regarding planned saving and investment. And therefore, the surplus approach to value and distribution of the classical economists and Marx is compatible with the principle of effective demand. This compatibility is markedly visible in growth theories wherein growth is demand led, the notable ones being Serrano (1995) and Smith (2012).

The penultimate chapter of the thesis presents a very simple demand-led growth model along the lines of Serrano and Smith. *An* answer is provided by this simple growth model to our dynamic Keynes question – that a growth in autonomous consumption can validate the growth in productive capacity and is therefore sufficient for economic growth. Chapter 12 also makes clear that the factors determining growth are themselves dependent on a variety of social and political factors. The grounding of distributive variables in socio-political factors is visible in the classical economists and Marx. In chapter 12, the openness to history and politics is therefore reaffirmed and given greater clarity by the marriage of the surplus approach to value and distribution with the demand-led determination of activity levels and economic growth.
CHAPTER 2

Cantillon

Richard Cantillon’s opus *Essai sur la Nature du Commerce en Général* (*Essai* hereafter) is a splendid essay touching most aspects central to political economy. It contains discussions pertaining to production, value, income distribution, money and international trade. A wide consensus exists with respect to the view that it is in Cantillon’s *Essai* that we first come across a ‘system’ of economic theory (Marshall 1920: 625; Schumpeter 1954: 562; Aspromourgos 1996: 112). This is why we begin with Cantillon and not with Petty or Pierre le Pesant Sieur de Boisguilbert. Section 2.1 lays out Cantillon’s conception of the social surplus and social classes. The theory of value and distribution is taken up in section 2.2. In section 2.3, the role of consumption in the determination of activity levels in Cantillon is analysed; a brief discussion on ‘external financing’ is also present in this section. Section 2.4 concludes the chapter.

2.1 Introduction

The view of the economy as a circular process between production and consumption has its origins in Cantillon’s *Essai*, although not with such analytical clarity as in Quesnay (cf. Murphy 1986: 260).¹ In Cantillon’s system, ‘[t]he overplus [le surplus du produit] of the Land is at the disposition of the Owner’ (*Essai*: 7) of which a fraction is paid to the State. The concept of the social surplus can be formulated either in commodity or labour terms. Both formulations require subsistence requirements to be known prior to the determination of the social surplus, in commodity or in labour terms. Cantillon employs the latter when he writes: ‘the Labour of 25 grown persons suffices to provide 100 others, also grown up, with all the necessaries of life according to the European standard’ (*Essai*: 87; see also Aspromourgos 1996: 75). Even while formulating the social surplus in labour terms, one requires the commodity subsistence requirements to be known so that the labour equivalent can be computed.

¹ Perhaps, it is because of Quesnay’s analytical transparency that Sraffa identifies his *Tableau Economique* to contain ‘the original picture of the system of production and consumption as a circular process’ (Sraffa 1960: 93).
Cantillon classifies the inhabitants into those who are independent, since they own land and those that are dependent on the owners of land (Essai: 43). The former group comprises princes, nobles\(^2\) and landlords/proprietors of land. The dependent inhabitants are further divided into those that receive fixed incomes and those whose incomes are unfixed or uncertain (Essai: 55). Undertakers, or ‘entrepreneurs’, as it is in the original French text,\(^3\) are identified with those who receive uncertain incomes. They could be farmers, artisans, merchants or labourers. The following excerpt captures Cantillon’s identification of social classes based on the certainty of incomes.

\[
\text{... except the Prince and the Proprietors of Land, all the Inhabitants of a State are dependent; ... they can be divided into two classes, Entrepreneurs and Hired people; and ... all the Entrepreneurs are as it were on unfixed wages and the others on wages fixed so long as they receive them though their functions and ranks may be very unequal. The General who has his pay, the Courtier his pension and the Domestic servant who has wages all fall into this last class. All the rest are Entrepreneurs, whether they set up with a capital to conduct their enterprise, or are Entrepreneurs of their own labour without capital, and they may be regarded as living at uncertainty; the Beggars even and the Robbers are Entrepreneurs of this class.}
\]

(Essai: 55)

Painters, lawyers and physicians are entrepreneurs who earn incomes by their labour solely. Shoemakers, tailors and wigmakers are also entrepreneurs who employ ‘journeymen’ to assist in production, in Cantillon’s scheme (Essai: 53). Manufacturers, artisans, wholesalers and retailers also fall under the entrepreneurial class (Essai: 51-5).

Having completed a brief overview of Cantillon’s conception of the social surplus and social classes, let us now turn to his theory of value and distribution.

2.2 Equilibrium prices and income distribution

Cantillon’s analysis of prices employs the concepts of ‘intrinsic value’ and market price. As he writes, ‘the Price or intrinsic value of a thing is the measure of the quantity of Land and

\(^2\) This chapter does not include an analysis of ‘nobles’, or broadly, the role of the State in the appropriation (via taxation) and consumption (via government expenditure) of the surplus. Cantillon observes that the princes’ consumption pattern is often emulated by the other classes (Essai: 93).

\(^3\) All quotations from Henry Higgs’s translation of the Essai are adjusted so that ‘Undertaker’ is always replaced with ‘Entrepreneur’, the corresponding word present in the (original) French text. But see Van den Berg’s argument that a sole reliance on the Essai as being inadequate for comprehending Cantillon’s economics (Van den Berg 2012).
of Labour entering into its production, having regard to the fertility or produce of the Land and to the quality of the Labour’ (Essai: 29). Intrinsic value is based on observable and measurable production conditions such as the acres of land used in cultivation or the number of labourers employed (Essai: 27). Market prices, on the other hand, depend on actual market conditions – the amount brought to the market in relation to demand, competitive strategies by rival entrepreneurs, number of buyers and sellers and so on. Hence, it is impossible for economic theory to state anything definite about market prices. It is precisely this realization which underlies Cantillon’s interest in intrinsic value over that of market prices. For the ‘method of fixing Market prices has no exact or geometrical foundation’ (Essai: 119). However, there is a tendency for market prices to gravitate or to ‘ebb and flow’ towards intrinsic values through the working of the process of competition. As Cantillon observes,

> [t]here is never a variation in intrinsic values,⁴ but the impossibility of proportioning the production of merchandise and produce in a State to their consumption causes a daily variation, and a perpetual ebb and flow in Market Prices. However in well organized Societies the Market Prices of articles whose consumption is tolerably constant and uniform do not vary much from the intrinsic value....

(Essai: 31)

The slim possibility of entrepreneurs’ day-to-day expectations about demand being correct makes market prices volatile but if demand and supply approximately coincide over the longer run, the market prices will, on average, approximately coincide with the intrinsic values.

What are the factors affecting demand? Cantillon lumps the temporary and permanent factors together (Essai: 49-51). A change in the number of births and deaths clearly constitute a permanent effect on demand whereas the alterations in the extent of expenditure by consumers and changes in consumption propensities cannot be classified as temporary or permanent a priori. The classification depends on the persistence of these factors. The demand on a particular market day, Cantillon notes, is also influenced by the

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⁴ This supposed constancy of intrinsic values seems a tacit implication of the absence of technical change in the Essai.
strategies of rival entrepreneurs (Essai: 51).\(^5\) It is the above cited factors which make demand rather uncertain,\(^6\) and thereby contributes to the risk involved in entrepreneurship in a Cantillonian economy.

The owners of land, the independent inhabitants, lease out land for which they receive rents from entrepreneurs.\(^7\) The entrepreneurial class consists of farmers who sell their product at a risk and therefore receive profits. Under equilibrium conditions, they receive quasi-wages, some kind of profits, for their undertaking (Essai: 47-49). Workers, the ‘Entrepreneurs of their own labour without capital’ (Essai: 55) receive wages, equalling their customary subsistence requirements. Subsistence is not a biological minimum, but one determined by customs and culture and varies across ranks (different kinds of labour activity) as well as time and space. In Cantillon’s conception, subsistence requirements include the costs of raising children (Essai: 79). The presence of ‘multiple customary subsistences’ in the form of rank/class determined subsistence requirements strongly reflects the socio-cultural dimension of subsistence wages present in Cantillon (Aspromourgos & Groenewegen 1999).

Profits, or quasi-wages, of the entrepreneurs are computed after deducting from gross income their subsistence requirements: ‘[t]he subsistence and upkeep of Entrepreneurs must always be deducted before arriving at their profit’ (Essai: 207). Profits did form a residual in Cantillon’s system after paying subsistence wages and rents. Also note that profits are not treated as a return on the capital advanced. In fact, we do not come across the conception of profits as a rate of return (the ratio between net profits and value of capital advanced) in the Essai.\(^8\) Profit is simply seen as a reward for carrying out

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\(^5\) When the demand is steady and the supply is equivalent to it, entrepreneurs’ expectations are completely fulfilled and the market prices will coincide with intrinsic values. Otherwise, there would be an entry/exit of entrepreneurs and depending on this, a change in labour demand too; in other words, the system will be in disequilibrium.

\(^6\) This uncertainty is not to be understood in the latter-day sense of Knight (1921), where calculable probabilities cannot be assigned to the event. To that extent, there is no fundamental or real uncertainty in the business transacted by Cantillonian entrepreneurs (see Aspromourgos 2012a).

\(^7\) The discussion of rents in the Essai is strikingly minimal. As Aspromourgos also notes, ‘Cantillon’s rather cursory treatment of rents is much less understandable’ compared to his discussion of entrepreneurs (Aspromourgos 1996: 83).

\(^8\) Although Prendergast thinks otherwise, and claims that ‘the profit of the farmer is a return on capital’ (Prendergast 1991: 424). She also thinks that profits ought to form a component of Cantillonian normal prices, an idea absent in Cantillon’s Essai (ibid: 425): ‘[t]he relationship
production in a risky environment ([Essai: 47-51]). That is, ‘profits enter the economics [of Cantillon] in a casual and incidental manner, without much system or theoretical significance. The treatment of undertaking gives at least the impression that profits (as quasi-wages) can entirely be explained in terms of premia for the risks associated with undertaker activity or labour’ (Aspromourgos 1996: 82). Berdell distinguishes between profits as quasi-wages and profits as a return to risk-bearing in Cantillon (Berdell 2009: 224); he considers the first as the ‘wage approach’ and the latter as the ‘risk-return approach’ in understanding the nature and determination of profits (ibid: 225). As per our interpretation, Berdell’s ‘wage approach’ explains the equilibrium situation and the ‘risk-return approach’ that of disequilibrium. In short, as Marx writes, profit ‘is still amorphously combined with wages’ in Cantillon ([Capital III: 784].

Are profits a part of the social surplus in the same manner as rents? Cantillon distinguishes the subsistence and profit element in entrepreneurs’ income (cf. Aspromourgos 2012a: 114). The subsistence element in entrepreneurs’ income is obviously necessary for production to continue, that is, for the reproduction of the system. However, is it legitimate to talk in the same way about the profit element in entrepreneurs’ income, which is a reward for undertaking production in the presence of risk? To pose the question differently, are profits essential for the reproduction of Cantillon’s system? A certain ‘normal’ amount of profits, it would appear, is necessary for entrepreneurs to engage in production. If profits are higher than the normal or usual amount in a particular sector, it would attract new and existing entrepreneurs to enter that sector ([Essai: 53] which over time would eliminate the ‘excess’ profit. On the other hand, if entrepreneurs suffer losses, they would exit that particular sector ([Essai: 51]. In addition, during this period of flux, the economy is not in equilibrium with market prices above or below intrinsic values. This process of competition, in Cantillon’s system, witnesses the regular entry and exit of firms with the latter sometimes resulting in bankruptcies.

... Entrepreneurs can never know how great will be the demand in their City, nor how long their customers will buy of them since their rivals will try all sorts of means to attract

between intrinsic value and the [normal] price concept, including profit as a return on capital, was not, however, discussed [by Cantillon]’ (ibid: 428). But Cantillon did consider (normal) profits, seen as quasi-wages, a part of intrinsic values.
customers from them. All this causes so much uncertainty among these Entrepreneurs that every day one sees some of them become bankrupt.

(Essai: 51)

All these Entrepreneurs become consumers and customers one in regard to the other, the Draper of the Wine Merchant and vice versa. They proportion themselves in a State to the Customers or consumption. If there are too many Hatters in a City or in a street for the number of people who buy hats there, some who are least patronised must become bankrupt: if they be too few it will be a profitable Undertaking which will encourage new Hatters to open shops there....

(Essai: 53)

This movement of entrepreneurs in the search for higher profits (however vaguely defined) can be said to constitute an early account of capital mobility and competition. Next, a detailed discussion of the determination of activity levels is carried out.

2.3 Consumption and activity levels

From the preceding discussion, it is evident that the socio-cultural datum, subsistence wages, plays a causal role in the determination of the social surplus. Workers’ subsistence is a necessary consumption so that the system reproduces itself. To produce corn, the main component of subsistence wages, adequate land has to be available. Reducing the cultivation of corn in order to produce non-necessary commodities has a negative impact on population by reducing the corn available for subsistence (see below). Although Cantillon does not have a theory of output as whole, his analysis of sectoral output levels within his price theory provides us with certain building blocks in the construction of a comprehensive theory of consumption and (aggregate) activity levels, and by extension, economic growth (see section 12.3).

Cantillon’s conception of demand as the relatively autonomous factor is particularly useful, not just for price determination but also in the determination of sectoral activity levels. Implicit in this conception is the idea of a normal ‘composition’ of consumption/demand across sectors. The entrepreneurs in every sector attempt to adapt supply to this demand, so as to earn profits. Commodity supplies adapt to their demands across sectors (cf. Brewer 1992: 64; Aspromourgos 1996: 84). Obviously, the increase in demand has to be persistent enough to induce an increase in population via permanent
increases in production. This adjustment is ultimately via an increased cultivation of land which requires additional workers. For ‘[t]he Number of Labourers, Handicraftsmen and others, who work in a State is naturally proportioned to the Demand for them’ (Essai: 23). More clearly, ‘the Labourers, Handicraftsmen and others who gain their living by work, must proportion themselves in number to the employment and demand for them in Market Towns and Cities’ (Essai: 25). When there is an overall increase in the volume of consumption across sectors, it will, over time, lead to an increase in employment of labour, subject to land constraints. However, an increase in labour supply is possible, in a closed system without technological progress such as Cantillon’s, if and only if there is an increase in the land utilized for cultivating corn. Cantillon does not have any explicit or implicit account of aggregate activity levels and employment, thereby making a definitive answer regarding the link between land utilization and activity levels difficult. We present excerpts from the Essai which help us clarify this problem.

... if the Village continue[s] in the same situation as regards employment, and derives its living from cultivating the same portion of land, it will not increase in population in a thousand years.

(Essai: 23; emphasis added)

[Entrepreneur-farmers] will not fail to change from year to year the use of land till they arrive at proportioning their production partly well to the consumption of the Inhabitants.

(Essai: 63)

... if ... the Prince, or the Proprietors of Land, cause the Land to be used for other purposes than the upkeep of the People ... the People will necessarily diminish in number. Some will be forced to leave the country for lack of employment....

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9 Transitory changes in consumption demand and the ensuing changes in labour demand are also considered by Cantillon (Essai: 25).
10 Contrast this mechanism with the marginalist theory wherein, given factor endowments, labour supply and demand are brought into equilibrium by adjustments in the real wage with labour demand adapting to labour supply, even if the latter is partly endogenous to changes in the real wage.
11 The effects of increased production and income of some sectors vis-à-vis other sectors are also mentioned in the Essai. In general, there will be a movement of entrepreneurs to the high-income sectors (cf. Essai: 163-5).
12 On the basis of a rational reconstruction of Cantillon’s relation between real wages (subsistence wages) and employment by undertaking a textual analysis of the Essai, Aspromourgos (1997: 425, 434) convincingly argues that there exists no theory of aggregate output. Necessary outputs are determinate but the surplus outputs are not.
(Essai: 73)

If enough employment cannot be found to occupy ... [the surplus labour] upon work useful and profitable to the State, I see no objection to encouraging employment which serves only for ornament or amusement.

(Essai: 91)

The above extracts suggest that there is a certain ambiguity in Cantillon’s theory as regards whether the land constraint is binding. The landowners vary the utilization of land based on how much of necessaries (such as corn) and non-necessaries (such as luxury manufactures) are to be produced. This ratio, of course, depends on the subsistence requirements of the population and the total available land. Aggregate consumption and employment of labour can increase, with landowners’ consumption demand playing a leading role, until a certain proportion is reached such that no increase in luxury manufactures can take place without a reduction in corn cultivation. There is no explicit mention of such a proportion in the Essai although the excerpt from page 73 quoted above does provide a strong hint.

Modern commentators unequivocally recognise the role of consumption in determining the composition of aggregate output, but as regards the size, the secondary literature is less unequivocal. Brewer argues that changes in consumer demand will result in a ‘reallocation of resources’ (Brewer 1992: 196) and so does Murphy: ‘[e]xpenditure determined the pattern of output in his [Cantillon’s] schema, with resources being allocated to the production of commodities which the landlord wishes to purchase’ (Murphy 1986: 259). And on another occasion, Murphy, somewhat different to his previous view, suggests that a ‘change in tastes would increase employment and expand the population’ (Murphy 2009: 79). Here, Murphy is talking about an increase in aggregate employment. Berdell recognises that ‘the pattern of demand determines the level of employment’ in Cantillon and points out the role of ‘higher consumption standards’ and ‘demonstration effects’ in determining activity and employment levels (Berdell 2010: 215).13 In short, Cantillon recognises the important role played by demand; he observes that the setting up manufactures especially in ‘remote’ or ‘distant’ areas

13 Despite this, his excessive consideration of the constraint imposed by land induces him to label Cantillon as a supply-side economist, albeit ‘in a rather different sense and spirit than his modern
would need not only much encouragement and capital but also some way to ensure a regular and constant demand, either in the Capital itself or in foreign Countries....

(Essai: 155; emphasis added)

This excerpt suggests that Cantillon considers demand to be crucial in the determination of activity levels; moreover, the provision of capital supply does not necessarily mean that there will be a sufficient demand.

The consumption that is dependent on current income is induced and that which is independent of it is autonomous. Individuals with incomes greatly in excess of subsistence requirements can alter their consumption independently of current income by varying their saving behaviour. Moreover, the ability of individuals to engage in borrowing also contributes to the element of autonomy, of course, subject to the fact that repayments have to be made out of future incomes. Additionally, a change in the composition of consumption will affect employment of labour because different consumption goods are in general produced with different labour-output ratios. In Cantillon’s theoretical scheme, there is one social class – the landowners – who are capable of engaging in autonomous consumption by altering saving behaviour, through borrowing and by changing their composition of consumption.14

The Owner, who has at his disposal the third of the Produce of the Land, is the principal Agent in the changes which may occur in demand.

(Essai: 63)

If land is not fully utilized, an increase in autonomous consumption of landowners will positively impact activity levels and employment of labour, leading to a rise in induced consumption as well (cf. Aspromourgos 1997: 420). Induced consumption, in Cantillon’s framework, mainly refers to the subsistence consumption of the workers and descendants’ (Berdell 2010: 217; also see Berdell 2009: 237-8, wherein he contrasts Cantillon’s supply-side view of the economy to Petty’s demand-side view). Undoubtedly, land is an important constraint in Cantillon’s economics which affects output and employment levels, especially with respect to the production of commodities necessary for consumption. However, this is not a sufficient reason to label him a supply-side economist.

14 Cantillon also mentions State spending via taxation as a source of demand (Essai: 175), and ascribes autonomy to its consumption (see especially Part I, Chapter XIV in the Essai entitled ‘The Fancies, the Fashions, and the Modes of Living of the Prince ... determine the use to which Land is put in a State and cause the variations in the Market-prices of all things’).
entrepreneurs. More employment of labour, given a certain level of subsistence wages, will undeniably lead to an increase in overall consumption. Economic activity is viable as long as sufficient land is employed to meet the customary needs of the inhabitants and other means of production can be replaced; when a surplus is possible, some land can be cultivated for non-necessary/luxury purposes. Cantillon is quite emphatic about the employment of sufficient land to meet customary requirements (for a formal model, see Aspromourgos 1996: 74-9).

As for the use to which the Land should be put, the first necessity is to employ part of it for the Maintenance and Food of those who work upon it and make it productive: the rest depends principally upon the Humour and Fashion of Living of the Prince, the Lords, and the Owner: if these are fond of drink, vines must be cultivated; if they are fond of silks, mulberry-trees must be planted and silkworms raised, and moreover part of the Land must be employed to support those needed for these labours; if they delight in horses, pasture is needed, and so on.

(Essai: 7)

Once subsistence needs are met, the remainder of land can be employed according to the consumption propensities of the landowners within certain limits. Nothing definite can be said about the magnitude of increase in overall consumption owing to his economics lacking a theory of aggregate activity levels. Besides, as noted already, there is an absence of definitive statements as regards whether the land constraint is binding.

The relative autonomy of landowners’ consumption is easily established by comparing it with the consumption propensity of the remaining social classes, especially entrepreneurs (cf. Aspromourgos 1997: 426-7). The other social classes, Cantillon notes, ‘imitate’ the consumption pattern of the landowners (cf. Murphy 1986: 259, who considers this observation of Cantillon as ‘a theory of conspicuous consumption behaviour’). On the other hand, labourers change their consumption propensity only out of ‘necessity’. This relative autonomy of the landowning class is neatly captured by the following excerpt.

The Owner, who has at his disposal the third of the Produce of the Land, is the principal Agent in the changes which may occur in demand. Labourers and Mechanicks who live from day to day change their mode of living only from necessity. If a few Farmers, Master Craftsmen or other Entrepreneurs in easy circumstances vary their expense and consumption they always take as their model the Lords and Owners of the Land. They imitate them in their Clothing, Meals, and mode of life. If the Landowners please to wear
fine linen, silk, or lace, the demand for these merchandises will be greater than that of the Proprietors for themselves.

_Essai_: 63; emphasis added; cf. 93 for a concise account of emulation, with the Prince playing the chief role)

Hence, over time, an increase in the autonomous consumption of landlords not only induces an increase in consumption via an increase in employment of labour but also induces a rise in the consumption of entrepreneurs through the imitation effect.\(^\text{15}\) Is there a net increase in aggregate consumption or is there only a change in the composition of aggregate consumption? As long as land is available and coupled with the ability of landowners to engage in external financing (besides their ability to reduce saving), an increase in aggregate consumption and therefore in output and employment levels is certainly _possible_. In other words, the sectoral activity levels are demand-determined, with the labour supplies adjusting to the respective labour demands derived from commodity demands with no tendency for labour demand to adapt to labour supply (cf. _Essai_: 73 quoted above).

In Cantillon's _Essai_, there is no clear distinction between saving and investment and consequently the connection of entrepreneurs’ profits with saving or investment is not visible. Owing to the excess of incomes over their customary requirements, the landowners are the ones who mainly save (cf. Berdell 2009: 243).\(^\text{16}\) Landowners also borrow money for purposes of luxury consumption. The lending and borrowing of money is intermediated by goldsmiths and bankers.

... as soon as a Landlord receives his Rent he puts most of it into the hands of a Goldsmith or Banker, who lends it at interest, so that this part is in circulation. Or else the Landlord spends a good part of it upon various things needful for his household, and before he gets his next quarter’s Rent he will perhaps borrow money.

\(^{15}\) With normal profits, this entails an increase in quasi-subistence wages; however, with excess profits, entrepreneurs can increase their consumption without the quasi-subistence wages having to increase in order to accommodate the increased consumption. In the latter case, which is a disequilibrium situation, the magnitude or direction of overall increase in consumption is difficult to ascertain because excess profits in Cantillon’s economics seem to convey some sort of redistribution of incomes, either from consumers or from rival entrepreneurs or from both.

\(^{16}\) Given this, it is not very clear why Murphy writes the following: ‘Cantillon did not seem keen to introduce the complication of savings acting as a leakage out of the expenditure circuit. By assuming that farmers and, of course, landlords did not save, he rid his model of such a complication’ (Murphy 1986: 260).
While discussing factors affecting the increase in money circulation, Cantillon points out that (some) entrepreneurs borrow in order to undertake production. But this sort of investment is entirely induced, brought about by an increase in autonomous (and induced) consumption. For entrepreneurs’ can hope for profit only when there is sufficient demand.

... Entrepreneurs and private individuals borrow money from their foreign correspondents at interest.... This often amounts to very considerable sums upon which the State must annually pay interest to these foreigners. These methods of increasing the money in the State make it more abundant there and diminish the rate of interest. By means of this money the Entrepreneurs in the State find it possible to borrow more cheaply to set people on work and to establish Manufactories in the hope of profit. The Artisans and all those through whose hands this money passes, consume more than they would have done if they had not been employed by means of this money....

Most certainly, Cantillon does not provide an account of the coordination of saving and investment in his theoretical framework. The quantum of money available in the economy together with the demand for money (for consumption and investment purposes) and the supply of money by goldsmiths and bankers (who accept the savings of landowners as deposits) determine the cost of borrowing money – the rate of interest. And clearly, the interest rate is not seen as equilibrating saving and investment, but as equilibrating the demand and supply of money where money is also demanded for purposes of consumption (cf. *Essai*: 139; 215).

### 2.4 Conclusion

In summary, the autonomous consumption of landowners determines activity levels and employment. Furthermore, a rise in autonomous consumption induces an increase in customary consumption (subsistence wages) in the aggregate owing to an increase in employment of labour if the land constraint is not binding. Additionally, other inhabitants,

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17 For example, ‘a capable Journeyman Hatter with no capital may undertake the same Manufacture by borrowing money and materials and abandoning the profit to anybody who is willing to lend him the money or entrust him with the beaver, wool, etc. for which he will pay only some time later when he has sold his hats’ (*Essai*: 203).
notably entrepreneurs, emulate the consumption propensities of the landowning class which further result in increased aggregate consumption. Both these mechanisms cause activity levels to rise as long as the land constraint is not binding. And the inter-sectoral relations between the necessaries producing sector and the surplus/luxury producing sector makes the causal link between autonomous consumption and activity levels not so straightforward; there arises a possible critical proportion after which increased consumption and production of luxury manufactures will lower aggregate employment and output. Cantillon’s economics, reflective of his contemporaneous economic situation, lacks an account of the rate of profit and its tendency to be uniform across sectors; also, he does not possess an account of capital accumulation. Hence, a theory of economic growth is absent (cf. Aspromourgos 1996: 122). Nevertheless, Cantillon’s identification of the landowners’ ability to engage in autonomous consumption points towards a theory of aggregate activity levels and economic growth where demand plays a leading role.
CHAPTER 3

Quesnay

The central figure in Physiocracy, François Quesnay, carries forward, from Cantillon, the view of the economy as a circular process between production and consumption. It is in Quesnay that we first come across an analysis of capital, which prompts Marx to label the Physiocrats as the ‘true fathers of modern political economy’ \( (TSV \, I:\, 44) \). Capital is distinguished into fixed and circulating and profits are identified as the source of capital accumulation. After describing in brief the productive and sterile distinction and social classes in section 3.1, we present Quesnay’s theory of value and distribution in section 3.2. Section 3.3 deals with sectoral quantity dynamics in which the possibility of a monetary leakage is discussed. The role of landowners’ demand and the importance of workers’ consumption is presented in section 3.4 and section 3.5 concludes the chapter.

3.1 Introduction

Agricultural rents emerge as the net product in Quesnay’s economics. According to Quesnay,

\[
\text{[t]he annual wealth which constitutes the nation’s revenue consists of the products which, after all expenses have been deducted, form the profits which are drawn from landed property.}
\]

\( (\text{Meek} \, 1962: \, 104) \)

So, by definition, net product can only be drawn from land. Although in the above passage, net product seems to refer to both agricultural profits and rents (see section 3.2 below for a discussion on this matter). It is the idea of land being able to generate a net product which gives rise to Quesnay’s classification of sectors as productive and sterile.

*Productive expenditure* is employed in agriculture, grasslands, pastures, forests, mines, fishing, etc., in order to perpetuate wealth in the form of corn, drink, wood, livestock, raw materials for manufactured goods, etc.

*Sterile expenditure* is on manufactured commodities, house-room, clothing, interest on money, servants, commercial costs, foreign produce, etc.

\( (\text{Kuczynski \& Meek} \, 1972: \, i; \, ‘3rd \, edn’) \)
The outputs of the sterile sector enter as inputs into the productive sector and vice versa. This inter-sectoral relation between the productive and sterile sector is rendered explicit in the following sentence.

The two classes spend in part on their own products and in part mutually on the products of one another.

(Kuczynski & Meek 1972: 2; ‘2nd edn’)

According to Eltis, the physical productivity of agriculture which generates a surplus or net product is the ‘fundamental Physiocratic proposition’ (Eltis 1984: 3-4). But as Meek (1962: 380) rightly notes, ‘there was nothing peculiarly Physiocratic about the idea that agriculture was inherently capable of yielding a disposable surplus over necessary cost in physical terms.’ Moreover, since agriculture requires manufacturing inputs and manufacturing requires agricultural inputs, it does not make sense to talk of a physical surplus in agriculture alone. In addition, the sterile sector also produces non-necessary or luxury manufacturing outputs. For the sterile sector to continue production, the capital advanced by manufacturers must return via sales (Kuczynski & Meek 1972: iii; ‘3rd edn’).

Landowners do not engage in any production. They earn rents by leasing out land. Farmers undertake agricultural production on the leased land by advancing capital, for which they receive profits. Artisans/manufacturers receive profits too (see below). As Quesnay writes in the Dialogue on the Work of Artisans:

... we have to divide the reproduction generated by the cultivator into two portions, namely the portion which provides for his own subsistence, and the portion which is in excess of this subsistence.

(Meek 1962: 227; cf. Mazat & Serrano 2012)

Cantillon had earlier recognised that to arrive at the entrepreneurs’ profits, their subsistence must be subtracted from their income (cf. Essai: 207; quoted in section 2.2). Workers are assumed to earn wages at subsistence levels. It will be seen in the following section that the magnitude of profits is not determined within Quesnay’s price theory despite him recognising their essential role in capital accumulation.
3.2 *Bon prix* and income distribution: the indeterminateness of profits

Two concepts of price are to found in Quesnay – fundamental price (*prix fondamental*) and proper price (*bon prix*).

The fundamental price of commodities is determined by the expenses or costs which have to be incurred in their production or preparation. If they are sold for less than they have cost, their price sinks to a level at which a loss is made. If they are sold at a price which is high enough to yield a gain *sufficient to encourage people to maintain or increase their production*, they are at their proper price.

(Meek 1962: 93; emphasis added)

Unlike Cantillon’s gravitation of market prices around their intrinsic value, the two notions of price in Quesnay are causally disconnected. There are no forces by which prices are driven to their fundamental price\(^{18}\) whereas a steady demand for products, according to Quesnay, ensures that prices will be at their *bon prix*. It is ‘luxury in the way of subsistence, which sustains the market for raw produce, its proper price [*bon prix*], and the reproduction of the nation’s revenue’ (Kuczynski & Meek 1972: 12; ‘3rd edn’). Linking *bon prix* with market demand renders it theoretically distinct from the long-run natural prices in classical economics since transitory elements enter into its determination and therefore makes profits indeterminate. However, the *prix fondamental* cannot be utilized because it does not contain any profits (also see Mazat & Serrano 2012). According to Quesnay,

> an opulent nation ... further increases its wealth, by maintaining through consumption the proper price of agricultural produce, and by stimulating through the proper price a plentiful supply of this produce. ... the proper price [is] favourable to the progress of agriculture....

(Meek 1962: 84)

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\(^{18}\) Although this solitary statement relating to international trade by Quesnay suggests that free competition can result in prices being driven to an ‘intermediate level’ around the *prix fondamental*: ‘as a result of ... general intercommunication and ... successive and mutual alternations of abundance and scarcity, prices always remain at an intermediate level, determined by the average fundamental price in ... countries which are joined together by trade’ (Meek 1962: 95). But note that Quesnay expects prices to be at an ‘intermediate level’ around the *prix fondamental* and not exactly equal to it; this lends support to our interpretation that *prix fondamental* does not include profits, for if they did, then free competition would drive the prices down to *prix fondamental*. 

As profits are not determinate, *bon prix* refers to a spectrum of prices above the *prix fondamental* with the *bon prix* containing a minimum profit (which just suffices for the reproduction of the economic system) forming the floor.

Meek argues that the market price of agricultural commodities is higher than the *prix fondamental* ‘by an amount equal (roughly) to rent’ and the market price of manufactured commodities is equal to their *prix fondamental* (Meek 1962: 389). Vaggi, on the other hand, considers the *prix fondamental* of agricultural commodities to include all physical costs as well as the rent (Vaggi 1987: 4, 82, 119). That is, for Vaggi, *bon prix* includes the *prix fondamental* (which comprises physical costs, subsistence wages and rents) and the farmers’ profits (Vaggi 1987: 11, 121, 129). It remains unsettled as to whether rents fall under *prix fondamental* or *bon prix*; this is because it is unclear whether Quesnay treated the rents payable to landowners as a cost incurred in production. What is important is that rents must enter as a component of *bon prix* when profits are just sufficient or more than sufficient for reproduction. Mazat & Serrano (2012) also give a similar interpretation.19

Both Meek and Vaggi deny the presence of permanent profits in manufacturing. Contrary to this view, the following passage by Quesnay makes the permanence of manufacturing profits clear.

Agricultural work compensates for the costs involved, pays for the manual labour employed in cultivation, provides gains for husbandmen, and in addition, produces the revenue of the landed property. *Those who buy industrial goods pay the costs, the manual labour, and the gain accruing to the merchants*; but these goods do not produce any revenue over and above this.

(Meek 1962: 72; emphasis added)

Merchants and manufacturers of course gain from production otherwise they would not engage in it. However, Quesnay considered the gains made by them to be a cost and not a revenue from the perspective of the ‘nation’: ‘the net product or revenue accruing to the nation is not confused with the gains of the merchants and manufacturing entrepreneurs;

19 They write: ‘we prefer to stick to the tradition of considering that rents are not part of the *prix fondamental* and that the price of grain that includes both costs and rents (whether or not grain surplus profits are positive) is the *bon prix*’ (Mazat & Serrano 2012: 12).
these gains, from the point of view of the nation, ought to be ranked as costs’ (Kuczynski & Meek 1972: 12; ‘3rd edn’). But strictly speaking, they are a surplus category (cf. Gilibert 1986: 93; also see the discussion in Aspromourgos 1996: 122-3). The existence of profits in the sterile sector, according to Meek, can be explained by the presence of monopolistic elements and not because of ‘any innate capacity in manufacture to yield a value-surplus’ (Meek 1962: 387). Likewise, Vaggi notes that ‘artisans can make no profit, because competition keeps the prices of their products equal to the costs of production’ (Vaggi 1987: 115; also see Eltis 1984: 14). But these interpretations are not consistent with the view contained in the above quoted passage.

Are farmers’ profits a temporary phenomenon? Meek maintains that the passages wherein profits are considered part of the surplus are isolated and that in the long run, profits disappear once the leases on land are renewed (Meek 1962: 268, 280, 300-1, 303-4, 306-7; also Barna 1976: 325-6). Likewise, Vaggi writes: ‘[t]he profits of cultivators are a residual share in the net product and are highly unstable; they even disappear in some periods … [while Quesnay maintains] that profits are the only source of capital accumulation in agriculture, and are the most important economic factor in the development of the country … (Vaggi 1987: 181). Although Vaggi agrees with Meek on the unstable nature of profits, he disagrees with Meek’s view that profits disappear when the leases are renewed. According to Vaggi, ‘profits do not disappear, for the competition among cultivators simply re-establishes a fair and just distribution of the net product’ (Vaggi 1987: 149, also see 143-52). Meek’s view seems untenable given Quesnay’s insistence on the role of capital accumulation in economic growth since the farmers appear ‘as the primary agent of economic growth’ (Meek 1962: 391). Although this view of profits appears inconsistent with the role assigned to profits by Quesnay, it is indeed the case that profits are indeterminate, but not transient as Meek suggests, in his price theory. Hence, Vaggi is correct, especially his observation of the ‘unstable’ nature of profits in Quesnay. This difficulty clearly manifests itself in the bon prix being a spectrum of prices above the prix fondamental with the former capable of containing different profit configurations, with the minimum just adequate for the reproduction of the economic system.

In Quesnay’s framework, there exists no explicit conception of profits as a rate of return on capital advanced (Meek 1962: 307; Barna 1976: 323; Eltis 1984: 13;
Aspromourgos 1996: 123). This is so in Cantillon’s economics as well (section 2.2). However, farmers and manufacturers do earn profits as noted earlier. There is no tendency towards equalization of profits on capital across sectors in Quesnay’s system because of the absence of free mobility of capital between the productive and sterile sector and because of the absence of the concept of the rate of profit. The absence of a principle pertaining to functional income distribution with particular respect to profits in Quesnay is perhaps reflective of his contemporaneous semi-capitalist socio-economic milieu.

As just noted, Quesnay lays down no precise principles for distributing the net product/surplus between rents and profits. However, two theoretical situations are outlined by Quesnay: (1) the case of zero net accumulation (a stationary economy) which is the situation captured in the famous *Tableau Economique* and (2) the case of positive net accumulation (a growing economy). In the first situation, profits just ensure reproduction and the entire surplus accrues as rents to the landlords (cf. Barna 1976: 324). In the second situation, there is a trade-off between rents and profits (also see Mazat & Serrano 2012: section VI). If the real rent per acre is fixed by a lease, then the profits in the two sectors emerge as a residual. Further, and more importantly, if the real rent is fixed, agricultural profits are maximised by reducing manufacturing profits to zero. As Gilibert also observes, ‘the price which leaves no net revenue in the hands of artisans (the “sterile” class) is the highest corn price compatible with reproduction; and so it is precisely that price which maximises the agricultural net revenue, in perfect agreement with the basic aim of physiocratic policy’ (Gilibert 1986: 94).

That the role of profits in net capital accumulation has been highlighted by Quesnay is a significant advance over Cantillon’s treatment of profits. Quesnay struggles to incorporate profits as a permanent and determinate part of his price theory but is not

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20 As Eltis also identifies, ‘[i]n stationary state conditions, Quesnay allows no more to the farmers than the multiple of the labourers’ long-term subsistence needs that ensures constant output...’ (Eltis 1984: 14). In Meek’s words, ‘[t]he situation envisaged is one of zero net investment, in which the national product is reproduced every year without increase or diminution’ (Meek 1962: 274; cf. Barna 1976: 316; Vaggi 1987: 26).

21 Vaggi recognises this trade-off in his concluding chapter: ‘[t]hus, a reduction of the merchants’ gains brings to light the existence of a conflict between landlords and farmers over the distribution of the surplus’ (Vaggi 1987: 177). So does Barna when he writes: ‘[t]he tension between investment and consumption is translated into a struggle between farmers and landlords for the surplus over costs of production...’ (Barna 1976: 331-2).
successful. His *bon prix* is also made to hinge on transitory market variables. Perhaps, it is because of his vexed treatment of profits that their position as an element of income in the realization of the social surplus is not well secured.

### 3.3 Sectoral quantity dynamics

We now provide a very brief reiteration of the production and reproduction conditions of the kind of economy Quesnay theorized. Landowners do not engage in production, but receive rents from leasing out land. Labourers in the agricultural and manufacturing sector earn wages which are just enough to meet their subsistence requirements. When agricultural profits are more than sufficient for reproduction, there will be net capital accumulation in the economy assuming (at least, a part of) these profits are used for capital accumulation.

Quesnay’s stationary economy is characterised by prices being at their *bon prix*, with profits just sufficient for reproduction. Therefore net accumulation is zero. Output supplies exactly equal their demands as Quesnay assumes ‘a medium situation in which the reproductive expenditure renews the same revenue from year to year’ (Kuczynski & Meek 1972: I, cf. xi; ‘3rd edn’). The influence of transitory market variables on *bon prix* is visible in this observation of Quesnay: ‘*A high level of expenditure on the consumption of subsistence goods sustains the proper price of produce and the reproduction of the revenue*’ (Meek 1962: 259). This statement seems to suggest that the expenditure on agricultural commodities ought to be such that it ensures that their prices are at *bon prix*, and that profits are just sufficient for replacing the capital advanced. Here, we again witness the difficulties with Quesnay’s price theory.

In the second situation, the *bon prix* of agricultural and manufacturing commodities contain profits such that net capital accumulation is possible. Net accumulation or investment implies an increase in agricultural capital, resulting in an increased supply of outputs (cf. Meek 1962: 243, 251; Groenewegen 1983: 7, 13, 21). The ‘capital of the entrepreneurial farmer … determines everything else…’ (Eltis 1984: 26, also see 25, 31 and 37). Owing to profits being greater than the minimum required for reproduction, there is net capital accumulation and hence economic growth. Also, on this growth path, there are no labour or land constraints (Eltis 1984: 10). Similarly, Cantillon did not conceive of any
labour constraints but he is more open to the possibility of land constraining activity levels than Quesnay (see section 2.3).

An inter-sectoral equilibrium, of the kind visualised in the *Tableau Economique*, is characterised by the equality of outputs supplied and consumed in all the sectors (cf. Eltis 1984: 25). If the economy is growing on a steady equilibrium path, sectoral output supplies must grow in line with the growth of sectoral consumption (both intermediate, to meet increasing production and final, an outcome of growing rents). Quesnay appears to possess a vague idea of production and consumption growing in line with each other.

An abundance of products is obtained through large advances; consumption and trade maintain the sales and market value of the products; the market value is the measure of the nation’s wealth....

(Kuczynski & Meek 1972: 17; ‘3rd edn’)

Yet again, Quesnay credits consumption with ensuring profitable sales; here, Quesnay introduces an additional price variable – ‘market value’ – although it essentially performs the same role as *bon prix*. It is because of the insecure position of profits in Quesnay’s price theory that Eltis, in his growth model of Quesnay, identifies propensity to consume agricultural products and improved marketability, both being of a transitory nature, to be growth determinants (Eltis 1984: 42-9, 57-61). A growth in net accumulation and production is however not sufficient, as Quesnay recognises, to ensure economic growth (cf. Barna 1976: 320). He also understands the positive link between profits, net capital accumulation and consumption (Meek 1962: 100).

The interest of the cultivator is the mainspring of all economic operations and all agricultural progress: the more that products constantly sell at high prices, the more assured are the annual returns of the farmers, the more cultivation is extended, and the more revenue the land brings in, as much through the proper price of the products as through the increase in annual reproduction. And the more reproduction increases, the more the wealth of the nation is expanded....

(Meek 1962: 164, 1n)

But as mentioned above, he is unable to provide a satisfactory theory of profits; they are determined by temporary market variables which disappear in the long run.
Moreover, Quesnay does not provide any indications as to the mechanisms by which the sectoral demands and supplies might equalize. On the nature of equilibrium in the *Tableau*, Meek comes to the conclusion that ‘the “equilibrium” depicted in the *Tableau* is hardly stable: at best it is neutral, and at worst it is unstable. Quesnay did not imagine that there were any forces inherent in the system which would pull it back toward this “equilibrium” situation if it should happen to depart from it…’ (Meek 1962: 292-3). Similarly, Vaggi points out that ‘[i]n Physiocracy there is no automatic mechanism which guarantees that the entire production will be sold’ (Vaggi 1987: 105, 15n). But Quesnay does vaguely indicate the need for adequate consumption even if he links it primarily to the *bon prix* for agricultural commodities.

Investment, in Quesnay’s theory, is undertaken primarily by farmers by recourse to their own saving. Quesnay recognises that landowners, perhaps owing to their incomes being greatly in excess of their subsistence requirements, could engage in saving. But he considered landowners’ savings to be a reduction of aggregate demand which has a negative impact on output levels and growth (Kuczynski & Meek 1972: 4; or Meek 1962: 236; cf. Eltis 1984: 20). The relevant passages indicating the negative effects of ‘sterile saving’ on activity levels and entrepreneurial incomes are as follows.

 THAT THE PROPRIETORS AND THOSE ENGAGED IN REMUNERATIVE OCCUPATIONS SHOULD NOT GIVE THEMSELVES OVER TO STERILE SAVINGS, WHICH WOULD DEDUCT FROM CIRCULATION AND DISTRIBUTION A PORTION OF THEIR REVENUE OR GAINS.  

(Meek 1962: 236)

That the proprietors and those engaged in remunerative occupations are not led by any anxiety, unforeseen by the Government, to give themselves over to sterile saving, which would deduct from circulation and distribution a portion of their revenues or gains.

(Kuczynski & Meek 1972: 4, see also 3; ‘3rd edn’)

No further details are provided especially with respect to the vehicles of savings or what happens to these savings eventually. As regards borrowing, Eltis comments that the absence of banks which lend money at moderate rates of interest implies that farmers could not borrow in order to increase their capital (Eltis 1984: 8). That banks are absent is surprising given that Cantillon, Quesnay’s predecessor, refers to entrepreneurial borrowing (esp. see section 2.3). According to Quesnay, ‘the expenditure of wealth must
necessarily precede the reproduction of wealth’ (Meek 1962: 71), leakages from the circular flow of expenditure negatively affect output levels and growth.

In Quesnay’s theory of economic growth, production (sectoral outputs) has to be validated by consumption (sectoral demands) and the latter in turn depends on the income from production (wages, profits and rents). But in Quesnay, there exists no account of how these sectoral outputs and sectoral demands are brought into equilibrium, although Quesnay does recognise that for economic growth, the increase in production has to be validated by an increase in consumption although the connecting variable – the *bon prix* – is not theoretically adequate because it is causally linked to temporary market variables.

### 3.4 Consumption propensities and activity levels

Consumption propensities or ‘the type of expenditure’ play a crucial role in determining the sectoral activity levels in Quesnay. When landowners as a class consume more from the productive sector than the sterile sector, the net product and its rate of growth increases. Landowners’ consumption, as in Cantillon (section 2.3), plays an important role in Quesnay’s economics. As per Gilibert, ‘it is difficult to deny that Cantillon deeply influenced Quesnay’s fundamental vision of production as a circular process put in motion by the expenditure of the landlords’ “disposable” revenue’ (Gilibert 1986: 93). The aggregate expenditure in the economy includes workers’ consumption besides landowners’ consumption. An increase in the propensity to consume agricultural commodities relative to their consumption in the stationary state, according to Eltis, ‘must produce growth’ (Eltis 1984: 47, for a detailed account see 42-9).²² Agricultural capital includes manufacturing inputs as well. Non-necessary manufacturing outputs are what Quesnay refers to when he discusses the negative impacts on economic growth from an increased expenditure on ‘luxury in the way of ornamentation’ (Kuczynski & Meek 1972: i,

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²² On this issue, see Barna (1976: 329-30) who puts forth two possible reasons why an increase in luxury consumption is considered detrimental by Quesnay. First, an increase in luxury consumption directly reduces the funds available for capital accumulation. And second, an increased propensity for luxury consumption can lead to a demand deficiency for agricultural outputs.
also ii; ‘3rd edn’) or on ‘conspicuous consumption’ (ibid: 12n). But ‘luxury in the way of subsistence’ is favourable to economic growth (ibid: 1; cf. Meek 1962: 317).

[L]uxury in the way of ornamentation ... is maintained only to the detriment of luxury in the way of subsistence, which sustains the market for raw produce, its proper price, and the reproduction of the nation’s revenue.

(Kuczynski & Meek 1972: 12; ‘3rd edn’)

In Quesnay, there is no concept of aggregate output which also includes luxury commodities. Therefore, his concern is with the supply of agricultural and manufacturing outputs and how there must be adequate demand for them. Moreover, the preceding discussion clearly suggests that supply adapts to demand.

Consumption propensities play a role in Quesnay’s growth theory as his *bon prix* is positively related to consumption expenditure. He qualifies it by adding that the consumption expenditure must be persistent such that it keeps the *bon prix* persistently at a level conducive to net capital accumulation and economic growth (see below). As pointed out earlier, it is not clear how the growth in sectoral supplies and demands, over time, tend to match without making very special assumptions. The two special assumptions are the following: (1) a decision to save is one and the same as the decision to invest whereby each farmer finances his investment from his own saving, and (2) there are no monetary leakages.

Workers’ consumption forms an important component of aggregate consumption. As in Cantillon, workers’ consumption is evidently induced consumption and landowners’ consumption is relatively autonomous. In the following excerpts from Quesnay, we notice that the consumption of the workers contributes towards maintaining the *bon prix* of agricultural products.

The peasant is useful in the countryside only in so far as he engages in production and makes a gain as a result of his labour, and in so far as his consumption of decent food and

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23 The distinction between productive and sterile sector in Quesnay can be conceptualised in two ways: (1) the distinction between investment and (surplus or non-necessary) consumption, or (2) the sterile sector as being divided into one which produces a part of agricultural capital and one which produces luxury goods. In the first case, the productive sector is seen as a vertically integrated agricultural sector which uses manufacturing inputs. Undoubtedly, some manufacturing inputs are necessary inputs in agricultural production.
clothing contributes to maintain the price of produce and the revenue of property, to
increase the number and ensure the gains of the manufacturers and artisans....

(Meek 1962: 83)

That the well-being of the lower orders is not reduced; for then they would not be able to
contribute sufficiently to the consumption of the produce which can be consumed only
within the country, and the reproduction and revenue of the nation would be reduced.

(Kuczynski & Meek 1972: 10; '3rd edn')

[Livestock] provides the land with the manure which procures abundant crops.... This
advantage is brought about through the sale, employment and use of wool in the kingdom,
through the high consumption of meat, milk foods, butter, cheese, etc., above all by the
lower classes, who are the most numerous.

(ibid: 11)

[When the] class of men [who cultivate the vineyards] ... becomes very numerous, it widens
the market for corn and wine, and maintains their market value, in the proportion that
cultivation is extended and the expansion of cultivation increases wealth.

(ibid: 16)

It might be tempting to ascribe underconsumptionist tendencies24 to these set of passages
in Quesnay, but these statements are solely indicators of the importance of bon prix in the
agricultural sector and for his growth theory in general. From the discussion of landlords’
and workers’ consumption, it is clear that the later issue of adequate aggregate demand is
already implied but not consciously understood or satisfactorily theorized in Quesnay.

Quesnay links his theory of activity levels and his growth theory with his notion of
bon prix which has strong associations with temporary market forces. Therefore, Quesnay
emphasises the role of good marketing conditions and free international trade for
agricultural products as ways to achieve economic growth (Meek 1962: 95; also see
Kuczynski & Meek 1972: 5; cf. Eltis 1984: 57-8). But given the indeterminateness of profits
in relation to bon prix, it is difficult for Quesnay to establish a coherent theory of capital
accumulation and economic growth without having recourse to transitory variables such
as market demand. It is for this reason that Quesnay forcefully has to argue that the bon
prix must be permanent and not transitory, in order to achieve economic growth.

24 See Meek’s essay ‘Physiocracy and the early theories of under-consumption’ where he does not
find underconsumptionist ideas in the analysis of consumption in Physiocracy (Meek 1962: 313-8).
Abundance plus dearness equals opulence. By dearness and abundance I mean permanent dearness and abundance, for a transitory dearness would not bring about a general circulation of wealth among the whole nation; it would increase neither the revenue of the proprietors nor the revenue of the king; and it would be advantageous only to a few individuals who happened at that time to have produce to sell at a high price.

(Meek 1962: 84-85)

Thus, we see Quesnay grappling with profits in relation to price theory and as a consequence, his attempt at theorizing growth is unsatisfactory. In any case, the role ascribed by Quesnay to profits in capital accumulation is a clear advance over that of Cantillon.

3.5 Conclusion

To sum up, economic growth in the kind of economy Quesnay theorizes is associated with profits being greater than that required for stationary reproduction and hence growing agricultural advances, with the landowners’ (and workers’) consumption favouring agriculture. But the capital accumulation undertaken by farmers is reconciled with saving by way of the very special assumption, that farmer’s finance their investment entirely from their own saving – so that saving and investment are reconciled by being one and the same thing. In Quesnay, we find a definite attempt at theorizing growth (which is almost entirely absent in Cantillon) but it is beset with difficulties as profits do not find a secure place in his price theory.
CHAPTER 4

Turgot

Anne Robert Jacques Turgot develops and extends the economics of Cantillon and Quesnay. It is in Turgot’s Réflexions sur la Formation et la Distribution des Richesses (Reflections25 hereafter) that we first come across the rate of profit as a return on capital and it being a permanent part of commodity prices. In the previous chapter, we saw how Quesnay, despite identifying profits as the source of capital accumulation was unable to theorize it successfully without having recourse to transitory market variables, and therefore fails in developing a coherent theory of ongoing economic growth. This chapter first presents the role of the net product and social classes in Turgot’s economics (section 4.1) followed by his theory of value and distribution in section 4.2. Section 4.3 deals with economic growth, especially the role played by saving and investment. Subsequently, in section 4.4, we examine the role played by consumption demand in his growth theory; further, we highlight his view on the possibility of leakages in the form of hoarding from the circular flow of income and expenditure. Section 4.5 concludes the chapter.

4.1 Introduction

Turgot classifies the inhabitants of a society into three social classes: (1) productive, (2) stipendiary and (3) disposable; the cultivators belong to the first, the artisans to the second and the proprietors to the third social class (Reflections: 49). The cultivators and artisans, according to Turgot, fall under the ‘non-disposable classes’ (Reflections: 50). Reminiscent of Quesnay, Turgot labels the non-cultivators ‘the sterile class’ (ibid) which comprises workers engaged in commerce as well (Reflections: 90). Turgot states very clearly that the entrepreneurs in manufacturing earn profits on their capital advances (Reflections: 70-1).

The landowners or proprietors lease out land to farmers ‘who undertake to make all the advances of cultivation, and who engage to pay the Proprietor a fixed revenue during the number of years agreed upon’ (Reflections: 56).26 This ‘fixed revenue’ is the rent

25 All references to Reflections in this thesis, unless otherwise mentioned, are to Peter Groenewegen’s translation published as Reflections on the Formation and the Distribution of Wealth in 1977.
26 If the tenant ‘had given him [the landowner] too low a price for his land, he could raise it at the end of the lease’ (Reflections: 55). This arrangement is also noted by Quesnay (see section 3.2).
received by the landowner and according to Turgot, ‘[t]here exists no truly disposable revenue in a state except the net product of land’ (Reflections: 93; also see 48-9). It is the cultivator or the husbandman who undertakes the cultivation of land and produces a ‘truly disposable revenue’.27

Do the profits of agricultural and manufacturing entrepreneurs form a part of the net product? Turgot’s answer is in the negative (see especially Reflections: 48). However, as section 4.3 will make clear, the savings of the profit earners form the only source of (net) capital accumulation. There is an inconsistency here.28 Meek discusses this issue in ‘The Physiocratic Concept of Profit’ and rightly concludes that the correct answer within Turgot’s theoretical scheme would be to treat profits as a surplus and therefore profits must be disposable in the same way as landowners’ rents (Meek 1962: 311-2). Aspromourgos also engages with this issue and reaches a similar conclusion (Aspromourgos 2009: 157-8). Next, we examine the theory of value and distribution in Turgot’s economics.

4.2 Theory of value and distribution

Like others in the classical economics tradition, Turgot distinguishes between ‘current price’ and ‘fundamental price’. This distinction is, however, not present in the Reflections; it is most clearly stated in a letter Turgot wrote to David Hume on March 25, 1767.29

...one must distinguish two prices, the current price, which is established by the relation of supply to demand, and the fundamental price, which, in the case of a commodity, is what the thing costs the workman. ... But although the fundamental price be not the immediate principle of the current value, it is nevertheless a minimum below which it cannot fall. ... it is necessary that the workman obtain a certain profit.... In a nation where trade and industry are free and vigorous, competition fixes this profit at the lowest possible rate.

27 Like Quesnay, Turgot reserves the pre-eminent economic position for the husbandmen (see Reflections: 45-6). Moreover, these cultivators are sufficiently wealthy to be able to provide large capital advances and undertake entrepreneurial activities; Quesnay and Turgot call this kind of cultivation ‘la grande culture’. Turgot discusses this in detail in his work titled Of the Characteristics of La Grande and La Petite Culture published in 1766.

28 In Quesnay’s economics, he specifically denies that manufacturing profits form a part of the net product even though this is not compatible with his overall theory because manufacturing inputs are necessary in agriculture and a growth in agriculture requires a growth in manufacturing too (see section 3.2).

29 This letter has been republished in the Appendix to the (Daire) edition of Reflections (pp. 106-10), translated by William J. Ashley and published in 1971.
In the passage quoted above, the position of the rate of profit as a component of fundamental price is very explicit (cf. Groenewegen 1970: 181); it is precisely this theoretical idea which Quesnay was unable to secure in his theory of value and distribution (see Groenewegen 1969: 285). The distinction between ‘fundamental value’ or ‘fundamental price’ and ‘exchange value’ or ‘current price’ is also made in a note in his *Observations of a Paper by Saint-Péravy* (*Observations* hereafter). Despite its length, it deserves to be quoted in full.

The fundamental value is fairly stable and changes less frequently than the exchange value. The latter is ruled by supply and demand; it varies with needs, and often a single event suffices to produce very considerable and sudden fluctuations. It is not in any essential proportion to the fundamental value, but it has a tendency to approach it continually and can never move far away from it permanently. It is obvious that it cannot remain below it for a long time; for as soon as a commodity can be sold only at a loss, its production is discontinued until the resulting scarcity has again raised it to a price above its fundamental value. The price can similarly not be much above the fundamental value for any length of time, for the high price, implying high profits, would call forth the commodity and generate lively competition among the sellers. Now the natural effect of this competition would be to lower the price until it again approaches the fundamental value.

(*Observations*: 120n)

This passage is also a clear description of the working of competition which drives the market price towards the fundamental value. While discussing the crucial role of expenditure in the circular flow (of income and expenditure), Turgot emphasises that the sale price must contain an element of profit.

It will be one of those Owners of capitals, or moveable accumulated values ... who will wait for the sale of leather to return him not only his advances, but also a profit sufficient to compensate him for what his money would have been worth to him, had he turned it to the acquisition of an estate, and moreover, the wages due to his labour and care, to his risk, and even to his skill....

(*Reflections*: 70)

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30 Groenewegen (1970: 181) therefore writes that Turgot’s fundamental value ‘appears to have the function of minimum supply price or long-run equilibrium price.’
It is this precise idea which Quesnay tried to formulate, although unsuccessfully, through the notion of a permanently high *bon prix*. The fundamental price in Turgot therefore covers the wage costs and provides a normal rate of return on the capital advanced.\(^{31}\)

What, according to Turgot, are the components of the rate of profit? From the sale of the harvest, the agricultural entrepreneurs must obtain

apart from the return of their capital, i.e. their original and annual advances, firstly, a profit equal to the revenue they would be able to acquire with their capital without any labour; secondly, the wages and the price of their labour, of their risk and their industry; thirdly, the wherewithal to replace annually the wear and tear of their property, the cattle that die and the tools that wear out, etc.

*(Reflections: 71)*

> It is necessary ... that, besides the interest of the capital, the entrepreneur should draw every year a profit to recompense him for his care, his labour, his talents and his risks, and to furnish him in addition that with which he may replace the annual wear and tear of his advances....

*(Reflections: 86)*

That is, the return on capital comprises a clear profit, a compensation for undertaking risk and superintendence and a compensation for depreciation (cf. Groenewegen 1971: 333). Moreover, this clear profit which the entrepreneurs acquire solely with their capital must be greater than the ‘interest of money on loan’.

*Money invested in agricultural, manufacturing or commercial enterprises, is bound to bring more than the interest of money on loan.*

*(Reflections: 86)*

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\(^{31}\) Brewer (1987) contains a simple formalization of Turgot’s price theory. He considers Turgot, and not Petty, to be the founder of classical economics owing to his definition of classical economics as a system of theorizing where profits and rents are clearly demarcated as parts of the surplus together with the equalization of profit rates (esp. see Brewer 1987: 426, n. 7). Even though Petty did not possess a satisfactory theory of value and distribution, we find the origins of the surplus approach to value and distribution in his works (cf. Aspromourgos 1996: 20-53; see esp. 52-3).
Unlike in Cantillon and Quesnay, we find a clear depiction of capital mobility in Turgot (cf. Aspromourgos 2009: 130, 184). Profit differentials cause capital to move from one sector to another.

...as soon as the profits resulting from an employment of money, whatever it may be, increase or diminish, capitals turn in that direction or withdraw from other employments, or withdraw and turn towards other employments....

(Reflections: 87)

Also, in the letter from Turgot to Hume, quoted previously, he observes:

[i]n a nation where trade and industry are free and vigorous, competition fixes this profit at the lowest possible rate. A kind of equilibrium establishes itself between the value of all the productions of the land, the consumption of the different kinds of commodities, the different sorts of works, the number of men employed at them, and the price of their wages.

In the same letter, Turgot, employing a machine metaphor, admits that there could be ‘frictions which delay the results’, but that ‘with time it always is restored.’

Workers in agriculture and manufacturing receive subsistence wages as in Cantillon, Quesnay and other classical economists. Turgot writes:

[i]n every kind of work, it must, and in effect, it does happen, that the wages of the Workman are limited to what is necessary to procure him a subsistence.

(Reflections: 46; also see 49)

Although the profits of industry are not, like the revenue of the soil, a gift of nature, and the working man draws from his labour only the price which is given to him by the persons who pay him his wages; although the latter economises as much as possible in the payment of these wages, and competition obliges the working man to content himself with a price less than he would like, it is nevertheless certain that this competition has never been numerous or keen enough in any kind of labour, to prevent, at any time, a man who is more expert, more active, and above all, more thrifty than others in his personal consumption, from earning a little more than was necessary for the subsistence of himself and his family, and from setting aside this surplus to create therewith a little store.

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32 Cantillon possesses a rudimentary account of capital mobility, with entrepreneurs moving across sectors in search of high profits (see section 2.2).

33 In Sismondi (chapter 8), these ‘frictions’ will be seen to play an important role whereas for Ricardo (chapter 7), his analysis is conducted assuming that these frictions are transitory and vanish with time.
The second excerpt from Turgot is evidence that wages in his theory are at customary levels and that some workers can engage in saving.

A fixed amount of the harvest proceeds accrues to the landlords as rents. The remainder enables the agricultural entrepreneur to maintain the current level of production (by compensating for wage payments at customary subsistence levels, for superintendence, for undertaking risk and for depreciation) and provides a clear profit. This profit, as the following section explains, provides the means for economic growth. In Cantillon, profits are really quasi-wages (section 2.2) and in Quesnay, profits depend on transitory variables and are a disequilibrium phenomenon (section 3.2). But it is in Turgot that we see a satisfactory treatment of profits, an unambiguous and definite advance over that of Cantillon and Quesnay, in so far as profits as a component of fundamental value are theorized as proportional to the capital advanced and risk.

4.3 Saving, capital accumulation and economic growth

Turgot refers to capital as ‘moveable wealth’.\(^{34}\) Capital originates ‘from the accumulation of annual produce not consumed’ (Reflections: 65; 64). Capital, writes Turgot, is a part of the total wealth of a nation along with the capitalised value of land.

\[\text{The total Wealth of a nation consists: firstly, in the net revenue of all landed estates, multiplied the rate at which land is sold; secondly, in the sum of all moveable wealth existing in the nation.}\]

(Reflections: 88)

In the next page, he emphasises that ‘[i]t would be a very gross error to confound the immense mass of moveable wealth with the mass of money that exists in a State...’ (Reflections: 89) which had led the mercantilists to confuse the quantity of money with the wealth of a nation. Both Cantillon and Quesnay also considered this an error. Turgot asks: how is ‘the sum of all moveable wealth’ to be increased in a State? This section provides the answer.

\(^{34}\) ‘Furniture, houses, plate, commodities in warehouses, the tools of each trade, and cattle, belong to this kind of wealth’ (Reflections: 65).
As noted in the preceding paragraph, the source of capital accumulation is saving from the annual produce. More clearly,

[w]hsoever, either from the revenue of his land, or from the wages of his labour or industry, receives each year more value than he needs to spend, may set aside this surplus and accumulate it: these accumulated values are what is called a capital.

(Reflections: 68; also see 64)

The only true wealth is the produce of the soil; the advances can thus grow only by the setting aside of part of what the soil produces, and part of what is not absolutely necessary for reproduction. It makes no difference whether this part is put aside by entrepreneurs of the industrious classes, or by the proprietors. ... the entrepreneurs retain part of their profits and accumulate capitals which they use to expand their enterprises.... The immediate result of thrift is the accumulation of moveable capitals, and these capitals are only accumulated for the purpose of obtaining a revenue or annual profit, which can only be done by employing this capital.

(Observations: 116; emphasis added)

Also, it is not just the landowners and entrepreneurs who could save but also workers who earn wages at customary subsistence levels could save by curtailing their consumption (cf. Reflections: 65 quoted above). Therefore, in Turgot’s economics, landowners, entrepreneurs and workers could engage in saving. As in Quesnay, entrepreneurs’ saving, by way of a special assumption, is treated as one and the same as investment thereby avoiding the need for an account of the coordination of saving and investment. So, a positive saving out of profits is sufficient for economic growth (see also Brewer 1995: 629). Cantillon’s account does not contain any definite statements on saving by the entrepreneurs; he does discuss landowners’ saving and borrowing in the context of their expenditure on luxury consumption (section 2.3). According to Turgot, the landowners have a passion for luxury consumption whereas it is ‘especially the entrepreneurs’ who engage in saving and capital accumulation.

The wage-receivers, and especially the entrepreneurs of the other classes, receiving profits proportionate to their advances, talents and activity, have, though they do not possess a revenue properly so called, a surplus beyond their subsistence; and almost all of them, devoted as they are to their enterprises, and occupied with increasing their fortune, removed by their labour from amusements and expensive passions, save all their surplus, to invest it again to their enterprise, and to increase it.

(Reflections: 94)
From this passage particularly, it is evident that entrepreneur profits are capable of being disposed in any manner without it affecting the reproduction of the system notwithstanding Turgot’s comment that entrepreneurs ‘do not possess a revenue properly so called’. More importantly, a part of the social surplus is realized only when the entrepreneurs make profits; in other words, profits are an element of the income realization of the social surplus. Given that profits are the main source of saving and (net) capital accumulation, Turgot is being inconsistent when he claims that rents alone form the ‘net product’ or surplus in his system (already noted in section 4.1).

Thus far, the role played by capital accumulation in production has been presented. How do the entrepreneurs get back their advances and a rate of profit on the capital advanced? Turgot’s answer: by proper sales. Proper sales imply a sufficient volume of sales corresponding to production and a proper sale price, which in a competitive environment, will be at their fundamental price (see section 4.2).

As fast as ... capital returns to him [the owner of capital] by sale of his products, he uses it for new purchases to furnish and maintain his Manufactory by this continual circulation; he lives on his profits, and lays aside what he can spare to increase his capital, and to direct it to his business, thereby increasing the amount of his advances, in order to increase his profits even more.

(Reflections: 70)

The Entrepreneurs either in Agriculture or in Manufacturing, draw their advances and their profits only from the sale of the fruits of the earth, or of the manufactured commodities. ... the Entrepreneurs require that their funds should return to them immediately and regularly, in order that they may put them back into their enterprises.

(Reflections: 73)

In other words, net capital accumulation alone does not guarantee economic growth; it has to be validated by an equivalent growth in aggregate demand with commodity prices at their fundamental price. Despite recognising the role of adequate demand, Turgot,

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35 Quesnay tried to address this question through his concept of the *bon prix* (see section 3.2).
36 Compare this passage of Turgot with that of Quesnay for a striking similarity:
...the more that products constantly sell at high prices, the more assured are the annual returns of the farmers, the more cultivation is extended, and the more revenue the land brings in, as much through the proper price of the products as through the increase in annual reproduction.

(Meek 1962: 164, 1n)
similar to his successor, Smith, maintains that the ‘spirit of thrift’ promotes capital accumulation and luxury consumption negatively impacts capital accumulation.

The spirit of thrift in a nation continually increases the amount of capitals, luxury continually tends to destroy them.

(Reflections: 81; also 84; cf. Groenewegen 1971: 336)

There is no mention of what luxury consumption entails in Turgot’s Reflections. Quesnay writes that ‘luxury in the way of ornamentation’ is detrimental for capital accumulation and economic growth, where these luxuries referred to manufactured luxuries produced by the sterile sector (see section 3.4).

Though Turgot recognises the benefits of division of labour (see Reflections: 45), he does not connect it with his growth theory in a systematic manner. With the rate of profit secured as a component of fundamental price, Turgot is able to theorize, in a satisfactory manner, the process of economic growth in this sense: a positive rate of saving (assumed equal to net capital accumulation) leads to economic growth as long as the extra production is validated by an equivalent consumption. But Turgot does not pursue the negative implications arising from a deficiency of demand. In fact, the view of the economy as a circular process between production and consumption squarely emphasises the role of consumption in reproduction as well as in economic growth. This perhaps explains why both Cantillon and Quesnay also recognised the importance of consumption; moreover, Quesnay clearly understood the negative impacts of leakages from the circular flow on capital accumulation and economic growth (see section 3.3.).

4.4 Possibility of leakages from the circular flow

Given the gross product produced and the set of fundamental prices, unless the entire product is demanded at these prices, the planned expenditure will be insufficient to demand the products at their fundamental price. Consequently, the activity levels fall. This is what happens when there are leakages from the circular flow. Entrepreneurs will cease to get back their advances together with the normal profits if the circular flow is disrupted

37 Aspromourgos also notes the presence of division of labour and productivity gains in Turgot and rightly points out that he does not possess an account of ‘ongoing technological progress’ (Aspromourgos 2009: 142).
at any point. In the following passage, Turgot seems to hint at the possibility of a glut in the economy.

For if, by any disorder whatsoever in the sequence of expenditure of the different classes of society, the Entrepreneurs cease to get back their advances with such profit as they have a right to expect, it is evident that they will be obliged to reduce their enterprises; that the amount of labour, of the consumption of the fruits of the earth, of the production and of the revenue would be equally diminished; that poverty will take the place of wealth, and that the common Workman, ceasing to find employment, will fall into the deepest misery.

*(Reflections: 75-6)*

By ‘the sequence of expenditure of the different classes’, Quesnay is probably suggesting that the ‘disorder’ can arise not only from a change in the landlords’ expenditure patterns but also from changing expenditure patterns of the farmers. This ‘disorder … in the sequence of expenditure’ will reduce the net product, profits and advances and will also lead to unemployment of labour. In the economy theorized by Turgot, he seems to suggest the availability of unlimited supplies of labour, at least in the following instance: the entrepreneur ‘pays him [the Workman] as little as he can; because he has the choice among a great number of Workmen, he prefers the one who works cheapest’ *(Reflections: 46)*. There are no labour supply constraints either in Cantillon or Quesnay.

Leakages from the circular flow can also happen in the event of hoarding – a specific form of saving. Quesnay had already recognised this possibility but in the *Tableau* he assumes a zero leakage. If saving does not translate into capital accumulation but is held in the form of money, Turgot terms it hoarding.

The timid Miser who accumulates money with the objective of preventing worries about lacking the necessaries of life in an uncertain future, keeps his money in a hoard.

*(Reflections: 68)*

As Groenewegen observes, ‘[o]nly when money savings are translated into commodities essential for production does capital accumulation occur’ *(Groenewegen 1971: 334)*. In a letter*38 to Du Pont de Nemours written in March 23, 1770, Turgot exclaims:

[to suppose that saving and hoarding are synonymous, what a confusion of ideas, or rather of language!]

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*38* See p. 112 in the Appendix to the edition of *Reflections* translated by W. J. Ashley.
This is also why Turgot writes that ‘saving does not really withdraw from circulation the money it puts aside’ (Observations: 122). For him, hoarding is a leakage whereas saving is not, because of the assumption that all saving is invested (cf. Observations: 116 quoted above; Reflections: 95 quoted below). This assumption of Turgot is noted by Schumpeter too (Schumpeter 1954: 324-6). Are decisions to save identical to decisions to invest in Turgot? If they are identical, there is no need for any coordination mechanisms which ensure the equality of saving and investment. To engage with these issues in a little more detail, let us see whether there is external financing in Turgot.

There is external financing in Turgot, just as in Cantillon and Quesnay. Turgot observes:

[t]he negligent and improvident Proprietor, who cultivates badly, who in years of abundance consumes in frivolous things the whole of his surplus, finds himself reduced on the slightest accident to request assistance from his more provident neighbour, and to live by borrowing.

(Reflections: 48)

In addition, Turgot refers to borrowing and lending when he discusses the determination of the rate of interest. Owners of money can lend at interest, or as Turgot calls it, ‘trade in money’ (Reflections: 77). Again, similar to Cantillon, borrowing can be for non-investment purposes too: ‘[p]eople borrow for all kinds of purposes, and with all sorts of motives’ (Reflections: 77; cf. Groenewegen 1971: 331).39 The rate of interest, as in Cantillon, is determined ‘by the balance between offer and demand’ (Reflections: 77; also 81). The more money available for lending relative to the money the borrowers need, the less is the rate of interest (Reflections: 84, 88).

Turgot lists five ways by which capital can be employed: (1) for purchasing a landed estate, (2) for investing in agriculture, (3) for investing in manufacturing, (4) for investing in commerce, and (5) for lending money for an annual interest (Reflections: 85; also

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39 Landowners borrow money for luxury consumption, an observation recorded by Cantillon as well (section 2.3). Groenewegen informs us that ‘borrowing for consumption purposes was an important part of the total demand for loans in a society dominated by landlords’ in David Hume (Groenewegen 1971: 331, n. 5). This is especially evident in Cantillon’s economics where landlords’ consumption has an important role to play (see section 2.3).
Observations: 121). Does Turgot possess an account of the equilibration of planned saving and planned investment? Turgot categorically writes towards the end of his book that

...the annual increase in capitals takes place in money; but all the entrepreneurs make no other use of it than to convert it immediately into the different kinds of effects on which their enterprises depend; thus, this money returns to the circulation....

(Reflections: 95)

Here, he reiterates his implicit assumption of planned saving being one and the same as planned investment. And in Observations, he states:

[i]n a nation where agriculture, industry and commerce flourish, and where the interest of money is low, the stock of capitals is immense, and yet it is well known that the quantity of money placed in hoards is quite negligible....

(Observations: 121)

That is, Turgot dismisses the actual occurrence of a glut arising from a leakage (see esp. Groenewegen 1971: 334-5). Despite this dismissal by Turgot, he is able to identify the negative effects of leakages from the circular flow on production and economic growth. Further, he recognises that disorders in the volume and composition of expenditure can cause labour unemployment.

4.5 Conclusion

A positive saving, primarily from profits, implies net capital accumulation and economic growth in Turgot’s economics. For Turgot, just as it is for Quesnay, a decision to save is one and the same as a decision to invest. The increase in productive capacity occasioned by net capital accumulation must be justified by a commensurate increase in aggregate demand. Moreover, although Turgot recognises the possibility of a glut arising from disorders in expenditure and the possibility of leakages from the circular flow – that is to say, planned expenditure is less than the value of the gross product at fundamental prices – he does not pursue their implications for his growth theory in any systematic manner. Furthermore, he believes that in reality the volume of these leakages is negligible and therefore not significant enough to have a negative effect on production and capital accumulation. More importantly, the special assumption equating planned saving and investment in Turgot (and Quesnay) implies that a corresponding injection, equivalent to the leakage, is always made.
CHAPTER 5

Steuart

The economics of Sir James Steuart contained in An Inquiry into the Principles of Political Economy makes use of the concept of the surplus, engages more deeply with inter-sectoral relations than Quesnay and possesses a notion of demand, relatively autonomous of the current levels of income and output. However, Steuart lacks a coherent theory of profits which makes his theory of value and distribution closer to that of Cantillon and Quesnay than that of Turgot. Section 5.1 very briefly lays out Steuart’s understanding of the surplus and its centrality in his economics. His theory of value and distribution is discussed in section 5.2 which exposes his difficulties in dealing with profits. Section 5.3 presents his sectoral quantity dynamics, which further reinforces the inter-sectoral relations in his economics. In section 5.4, his identification of demand as posing a significant constraint on growth, with supply adapting to demand, is presented. Also, his account of taste and aspirations, a kind of autonomous demand concept, is explored. In the concluding section (5.5), the lack of saving and investment analysis is highlighted and so is the absence of a solution to determining overall activity levels.

5.1 Introduction

According to Steuart, agricultural surplus or ‘net produce’ refers to ‘the quantity of food and necessaries remaining over and above the nourishment, consumption, and expence, of the inhabitants employed in agriculture’ (Steuart 1767: 54). That is, he deducts necessary expenses from the total agricultural output to arrive at the surplus (cf. Aspromourgos 1998: 419). These necessary expenses include manufactured commodities as well (see below). Similar to Cantillon and Quesnay, surplus is seen to be realized in land rents. Bearing a strong similarity to Cantillon’s three rents generated by the cultivation of land, Steuart writes that

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40 According to Cantillon, the farmer makes three rents: ‘The principal and true Rent which he [the farmer] pays to the proprietor, supposed equal in value to the produce of one third of his Farm, a second Rent for his maintenance and that of the Men and Horses he employs to cultivate the Farm, and a third which ought to remain with him to make his undertaking profitable’ (Essai: 121). Skinner, the editor of Steuart’s Inquiry, also makes a note of this similarity (Steuart 1767: 53, n.7). Groenewegen convincingly shows that Steuart has not read Cantillon’s Essai, but that his access to
... it is very certain, that all rents are in a pretty just proportion to the gross produce, after deducting three principal articles. First, The nourishment of the farmer, his family, and servants. Secondly, The necessary expences of his family, for manufactures, and instruments for cultivating the ground. Thirdly, His reasonable profits, according to the custom of every country.

(Steuart 1767: 53)

Note the presence of inter-sectoral relations in the above passage; necessary consumption includes commodities produced by the manufacturing sector besides those produced by the agricultural sector (cf. Yang 1994: 10, n. 3). However, Steuart’s identification of agricultural surplus as net product places his economics closer to Cantillon and Quesnay than Turgot.

The agricultural sector and its surplus occupy a central position in Steuart’s economics because it generates the final demand for the manufacturing commodities and also encourages population growth. This will be explored in detail in section 5.3. Steuart divides the inhabitants into two ‘principal classes’: ‘farmers’ who are employed in agriculture and ‘free hands’ – ‘who may be employed in manufactures, trades, or in any other way’ (Steuart 1767: 54). An increase in manufacturing activity levels engenders an increase in the demand for agricultural commodities and vice versa. One cannot expand without the other. A larger agricultural surplus enables a greater number of people to be employed given a certain level of subsistence. In the following section, besides discussing the theory of value in Steuart, we also examine the determinants of subsistence.

5.2 Equilibrium prices, profits and wages

Steuart’s equilibrium price is made up of the ‘real value’ and the ‘profit upon alienation’ (Akhtar 1978: 61; Yang 1994: 30; Aspromourgos 1996: 135; Skinner 2006: 81). These equilibrium prices are a result of competition, by the buyers and the sellers mediated by merchants. The ‘profit upon alienation’ is determined by transitory market variables, notably, the proportion between the supply and demand (cf. Sen 1957: 51; Yang 1994: 34-6, 47). But the ‘real value’ is not affected by market variables (cf. Akhtar 1978: 62). There

Philip Cantillon’s The Analysis of Trade which paraphrases large sections of the Essai led modern commentators to believe that Steuart had read Cantillon (Groenewegen 1999). Murphy (1986: 287) identifies Philip Cantillon as Richard Cantillon’s cousin.
is no reference to profits as a return on capital advanced as in Turgot. Instead, Steuart’s notion of profits bears a close resemblance to that of Quesnay.

In the price of goods, I consider two things as really existing, and quite different from one another; to wit; the real value of the commodity, and the profit upon alienation.

(Steuart 1967: 159)

Like Quesnay’s discussion of the impact demand has on the *bon prix*, Steuart also possesses a similar account. This view of Steuart is reinforced in the following excerpt.

...profits may rise and fall, in the proportion of quantity [supplied] to demand; that is to say, if the provision is less than the demand ... the rise of the price, will be in the compound proportion of the falling short of the commodity, and of the prospect of selling again with profit. It is this proportion which regulates the competition, and keeps it within bounds. It can affect the profits only upon the transaction; the intrinsic value of the commodity stands immoveable: nothing is ever sold below the real value....

(Steuart 1767: 177-8; emphasis added; cf. 153)

In the above excerpt, Steuart uses ‘intrinsic value’ interchangeably with ‘real value’ and ‘price’ refers to the equilibrium price which contains a profit element. The commodity is usually never sold below the ‘real value’, but in one instance, Steuart notes this possibility (Steuart 1767: 192). As profits depend on the ‘custom’ of a country, there is a certain indeterminacy and ambiguity with respect to their determination. Steuart points out the possibility of profits being ‘consolidated’ into the ‘real value’ of commodities:

...if the scale of demand remains preponderating, and so keeps profits high, the consequence will be, that, in a little time, not only the immediate seller of the goods, but also every one who has contributed to the manufacture, will insist upon sharing these new profits. ...in consequence of this wide repartition, and by such profits subsisting for a long time, they insensibly become consolidated, or, as it were, transformed into the intrinsic value of the goods.

(Steuart 1767: 192-3; cf. Aspromourgos 1996: 139)

This is a strong indication that Steuart does not conceive of profits as a definite return on capital advanced (also see Meek 1958: 294-5). But perhaps, this process of ‘consolidation’ reflects Steuart’s attempts to treat profit as a definite component of equilibrium prices, a necessary part of the ‘real value’ of commodities (cf. Skinner 2006: 83). Moreover, Steuart’s economics is devoid of capitalists, the social class which advances capital for purposes of production. It is this absence and the associated ‘wages/profit fusion’ that
leads Aspromourgos to write that the profits in Steuart are ‘the profits of labour’ (Aspromourgos 1996: 139). Yang is aware of this fusion or confusion too (Yang 1994: 48-50). Sen (1957: 74), without recognising the above mentioned issues, treats the process of ‘consolidation’ as a redistribution of incomes from profits to wages.

Steuart further writes that such ‘consolidation’ occurs because of ‘the habitual extraordinary gains’ arising from a situation of excess demand. When Steuart talks of customs of a country as determining the profits (Steuart 1767: 53 quoted above), he is, perhaps, referring to such ‘habitual extraordinary gains’. In Cantillon, profits are more like quasi-wages in return for entrepreneurs’ normal activity in an environment of equilibrium whereas in disequilibrium, profits can contain a premium due to temporary excess demands (section 2.2) and in Quesnay, profits are not satisfactorily theorized because they are determined by transitory market variables (section 3.2). Steuart makes an advance, albeit a very minor one, over Cantillon, when he discusses the possibility of profits ‘consolidating’ into the ‘real value’ of commodities. Also, as noted before, the role of demand in Steuart’s equilibrium prices bears strong affinities with Quesnay’s bon prix. The extent and limits of competition therefore determine the upper bound of the equilibrium prices in Steuart via their influence on profits. As Aspromourgos rightly observes: ‘Steuart is unable to provide a determinate theory of profits ... that a certain ambiguity or indeterminacy pervades his entire treatment of distribution and value’ (Aspromourgos 1998: 419; cf. Aspromourgos 1996: 129, 140; Akhtar 1978: 73; Brewer 1997: 7).

In equilibrium, quantity supplied equals quantity demanded and commodity prices are at their equilibrium values (Sen 1957: 53; Aspromourgos 1996: 141).

...when we say that the balance between work and demand is to be sustained in equilibrio, as far as possible, we mean that the quantity supplied should be in proportion to the quantity demanded, that is, wanted. While the balance stands justly poised, prices are found in the adequate proportion of the real expence of making the goods, with a small addition for profit to the manufacturer and merchant.

(Steuart 1967: 189)

Consequently, if the increase in supply is exactly balanced by an increase in demand, according to Steuart, there will be no change in the equilibrium price of the commodity in question.
What can increase commodities, but a demand for them? If the demand be equal to the augmentation, there will be no alteration in the price.

(Steuart 1767: 354)

Steuart distinguishes price and quantity adjustment in relation to the demand-supply interaction (Aspromourgos 1996: 128). We do not engage with Steuart’s ‘elaborate taxonomy of competition’ here (see Aspromourgos 1996: 128-30 for a lucid account). Despite possessing an elaborate account of the working of competition, Steuart’s theory of value and distribution lacks coherence. In particular, Steuart’s account of profits obfuscates the distinction between natural and market prices. It is perhaps this theoretical inadequacy which prompts Yang to incorrectly ascribe a demand and supply theory of value to Steuart (Yang 1994: 56; see Aspromourgos 1995: 146 for a similar but more detailed critique of Yang’s position).41

The concept of ‘physical and political necessaries’ which determines subsistence wages is explored at some length by Steuart (Steuart 1767: 269-276). Physical necessaries primarily include food, clothing and shelter. If ‘sufficient’ quantities of these commodities are consumed, an individual’s wants of a physically necessary nature are satisfied. However, there exists no exact definition of what is sufficient; hence, Steuart notes that it ‘is determined by general opinion only, and therefore can never be justly ascertained’ (Steuart 1767: 271). Moreover, subsistence for Steuart did not refer to the commodities which are just enough for the reproduction of labour but is a broader conception than that (Sen 1957: 63, 73). Political necessaries, for Steuart, ‘are formed by habit and education, and whence regularly established, create another kind of necessary...’ (Steuart 1767: 270; cf. Skinner 2006: 84). In a manner akin to Cantillon (section 2.2), Steuart classifies the population into ranks on the basis of their consumption of political necessaries (cf. Aspromourgos 1996: 131-2; also see Stirati 1994: 33-4). Thus, he writes:

41 Doujon (1996) disagrees with Yang’s interpretation but for a very different reason. According to Doujon, since Steuart does not have a ‘significant theory’ of what determines supply and demand, Yang’s conclusion on Steuart’s theory of value is incorrect (Doujon 1996: 177). But of course, Steuart has an extensive and a very detailed account of ‘effectual demand’ and how supply adapts to it (for instance, see Steuart 1767: 62-3, 137, 153 all quoted below), which undermines Doujon’s criticism. Karayiannis (1997: 161) concurs with Yang’s interpretation, but does not offer any reasons.
[t]his political-necessary has for its object, certain articles of physical superfluity, which distinguishes what we call rank in society. Rank is determined by birth, education, or habit.

(Steuart 1767: 270)

A distinction is made between ‘pure physical-necessary’ and ‘political-necessary’ commodities (Steuart 1767: 270). The latter is determined by ‘habit and education’ and once they are ‘regularly established,’ the needs arising from such socio-political arrangements also are considered necessary. That is, subsistence wages can change and rise over time (cf. Skinner 1981: 28). Recent commentators have noticed this possibility of the rising real wage in Steuart via changes in habits and education, or broadly speaking, via social and cultural factors (Stirati 1994: 65-8, 72, 84; Aspromourgos 1996: 132; cf. Furniss 1920: 209-210 who presents evidence that the real wages of workers actually rose over the period from 1713 to 1764). In principle, this requires the market wages to be above the natural wage for sufficient time such that it raises the natural wage (cf. Aspromourgos 2009: 300, n. 59 who terms this ‘a kind of hysteresis of the real wage’). Steuart’s account of subsistence wages, in relation to their ‘physical-necessary’ and ‘political-necessary’ elements, in conjunction with that of Cantillon, can prove to be very useful inputs in developing a classical theory of consumption.

5.3 Sectoral quantity dynamics

Agricultural surplus, as noted in section 5.1, occupies a central place in Steuart’s economics (cf. Akhtar 1978: 58-9). Owing to the inter-sectoral relations between the agricultural and manufacturing sectors, a growing agricultural surplus is favourable for manufacturing growth and vice versa. Apart from the necessary agricultural and manufacturing outputs that are used up in the process of production, the surplus outputs are mainly used for luxury consumption. In terms of incomes, these correspond to rents and profits (when consolidated in the equilibrium prices). What are profits used for? Presumably due to their ambiguous economic character, Steuart writes that profits are ‘either spent in luxury, (that is, superfluity,) lent, or laid up’ (Steuart 1767: 53). The role of capital advances in production is not explicit, nor is the role of profits in capital accumulation. It is evident, as Aspromourgos concludes, that ‘Steuart does not have a theory of net accumulation or saving’ (Aspromourgos 1996: 143; also see Eagly 1961: 55, n. 2).
Steuart rightly identifies hoarding (‘laid up’ profits) – a particular form of saving – as a possible leakage from the circular flow (Steuart 1767: 53; quoted above) which would dampen aggregate demand and therefore activity levels and employment. This is noted by Akhtar when he writes that ‘the private sector will not automatically convert all of its annual savings into investment’ but he does not present any extracts from Steuart in support of this (Akhtar 1979: 297). Karayiannis (1994: 47) also points out the negative effects that hoarding has on activity levels and employment in Steuart, being a leakage from the circular flow of income. This is not surprising given Steuart’s view of the economy as a circular process; indeed, expenditure-reducing leakages are considered harmful by both Quesnay (section 3.3) and Turgot (section 4.4).

Steuart’s discussion of quantity dynamics revolves around the limits posed by deficient demand. As noted in section 5.1, population growth depends on the growth of the agricultural surplus (cf. Sen 1957: 32-4). Thus, Steuart writes that agriculture ‘will augment population, in proportion only as the necessitous are put in a situation to purchase subsistence with their labour’ and that ‘[a] people, therefore, who have an industrious turn, will multiply in proportion to the superfluity produced by their farmers; because the labour of the necessitous will prove an equivalent for it’ (Steuart 1767: 40). This mechanism is similar to that found in Cantillon, where population growth depends on the growth of subsistence goods (see section 2.3; cf. Stirati 1994: 92-3; also Yang 1994: 112). Furthermore, in Steuart, the manufacturing sector growth indirectly affects population growth via agricultural growth: ‘[t]rade, industry, and manufactures, tend only to multiply the numbers of men, by encouraging agriculture’ (Steuart 1767: 50). This further reinforces the inter-sectoral dynamics present in Steuart’s economics.

Is there a tendency towards full employment of labour in Steuart? According to Akhtar, ‘[f]or Steuart, equilibrium is an ideal position and, therefore, in the context of macroeconomics, the equilibrium of demand and supply necessarily implies the state of full employment’ (Akhtar 1978: 66). But there is no automatic tendency towards full-employment and hence the need arises for ‘control’ and ‘management’ of the economy (Meek 1958 provides a historical perspective to the ‘economics of control’ in Steuart). The equilibrium of demand and supply in agriculture and manufacturing need not result in a full-employment situation. As Yang rightly identifies, labour unemployment arises from an
insufficiency of ‘effectual demand’ (Yang 1994: 104-7; cf. Stirati 1994: 93). No forces in the system are present which strive to eliminate this glut of workers.\footnote{Yang (1994: 110-1) also discusses how the introduction of machinery, according to Steuart, leads to temporary unemployment.}

### 5.4 Demand and quantity dynamics

An increase in agricultural surplus by itself does not guarantee economic growth. The increase in supply must be in proportion to the demand of the inhabitants. Steuart recognises that

> the augmentation [of agriculture] must be made to bear a due proportion to the progress of industry and wants of the people, or else an outlet must be provided for disposing of the superfluity.

(Steuart 1767: 40)

And

> in proportion as foreign trade declines, either a proportional augmentation upon home consumption must take place, or a number of the industrious, proportioned to the diminution of former consumption, must decrease.

(Steuart 1767: 229)

The point is that alternate avenues of consumption need to be provided so that a glut can be avoided. The two significant avenues mentioned by Steuart are foreign consumption or exports and public expenditure. He treats foreign consumption as a distinct source of aggregate demand (cf. Yang 1994: 129-30, 135; Skinner 1963: 442). Hence the statesman ‘must do what he can, to constantly proportion the supply to the demand made for them’ (Steuart 1767: 234). If agricultural production is greater than what can be consumed, it will affect the activity levels adversely by discouraging agriculture. Steuart clearly points this out in the following excerpt.

> And if, at setting out, a foreign consumption cannot be procured for the produce of husbandry, the greatest caution must be had to keep the improvement of soil within proper bounds: for, without this, the plan intended for an improvement will, by over-doing, turn out to the detriment of agriculture. This will be the case, if the fruits of the earth be made to increase faster than the numbers and the industry of those who are to consume them. For if the whole be not consumed, the regorging plenty will discourage the industry of the farmer.
This is a candid statement expressing the constraints imposed by demand. That is, the growth in supply must not outpace the growth in demand owing to the negative effects the deficiency of demand has on activity levels. He further writes:

[The laziest part of the farmers, disgusted with a labour which produces a plenty superfluous to themselves, which they cannot dispose of for any equivalent, will give over working, and return to their ancient simplicity. ... Thus by the diminution of labour, a part of the country, proportional to the quantity of food which the farmers formerly found superfluous, will again become uncultivated.]

In short, if sufficient demand cannot be found for the surplus, activity levels will diminish. A glut in the commodity market will lead to unemployed labour and reduce the land under cultivation. Such a mechanism is also present in Cantillon (see section 2.3; cf. Aspromourgos 1995: 148). Also, the above two excerpts suggest that a deficiency of demand discourages economic development.

The point about demand sufficiency is further reinforced by Steuart in several other instances which also indicate that activity adapts to demand.

The proper and only right encouragement for agriculture, is a moderate and gradual increase of demand for the productions of the earth: this works a natural and beneficial increase of inhabitants.

What is it that encourages agriculture, but a great demand for its productions?

The nature of demand is to encourage industry; and when it is regularly made, the effect of it is, that the supply for the most part is found to be in proportion to it.

The direction of causation with respect to *sectoral activity levels* runs from demand to activity levels. But then, the surplus in manufacturing is the source of agricultural demand and vice versa which muddies the causation story presented earlier. In Steuart, agricultural output depends upon demand from the manufacturing sector and manufacturing output
depends upon demand from the agricultural sector (cf. Yang 1994: 112-3; see Eagly 1961: 54). Consequently, a solution to determining overall activity levels remains unclear.

In the following, rather lengthy, but very crucial passage Steuart explains the causal link between ‘effectual demand’ and agricultural surplus.

I have already distinguished the fruits of agriculture from the earth’s spontaneous productions: I must farther take notice, that when I employ the term agriculture in treating of modern policy, I always consider it to be exercised as a trade, and producing a surplus, and not as the direct means of subsisting, where all is consumed by the husbandman…. We have said that it is the surplus produced from it, which proves a fund for multiplying inhabitants. Now there must be a demand for this surplus. Every person who is hungry will make a demand, but every such demand will not be answered, and will consequently have no effect. The demander must have an equivalent to give: it is this equivalent which is the spring of the whole machine; for without this the farmer will not produce any surplus, and consequently he will dwindle down to the class of those who labour for actual subsistence. The poor, who produce children, make an ineffectual demand, and when they cannot increase the equivalent, they divide the food they have with the newcomers, and prove no encouragement to agriculture. By dividing, the whole become ill fed, miserable, and thus extinguish. Now because it is the effectual demand, as I may call it, which makes the husbandman labour for the sake of the equivalent, and because this demand increases, by the multiplication of those who have an equivalent to give, therefore I say that multiplication is the cause, and agriculture the effect.

(Steuart 1767: 117)

Income, therefore, is what converts ‘demand’ into ‘effectual demand’ as implicit in his reference to ‘the poor’ who lack income and therefore ‘make an ineffectual demand’.

However, Steuart does not possess an explicit account of how demands become effectual. Yes, in Steuart, an increase in labour supply (that is, that part of the population which is capable of working) causes an increase in ‘demand’ but not in ‘effectual demand’. Therefore, Steuart’s proposition that ‘multiplication is the cause, and agriculture the effect’ is not correct based on his own economic logic. In so far as the existence of people

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43 In Akhtar’s model, the manufacturing sector is assumed to produce only luxuries and hence they do not enter as inputs into agricultural production (Akhtar 1978: 58-61). The demand for agricultural surplus comes from the manufacturing sector and the demand for luxuries comes from the agricultural sector. So, the process takes place simultaneously, and according to Akhtar, it is ‘cumulative’ (ibid: 59). Akhtar (1978) appears to be following Sen (1957: 35-6) in his formulation. Sen (1957: 36) writes:

and the more luxuries are produced, and popularised, the greater is the inducement for the farmers to produce a surplus of food, and so on cumulatively.
is logically or rather, biologically prior to them earning income, Steuart is correct to posit that population is important.

A man must first exist, before he can feel want; he must want, that is, desire, before he will demand; and he must demand, before he can receive. This is a natural chain, and from it we have concluded ... that population is the cause, and agriculture the effect.

(Steuart 1767: 150)

But this logical priority is not sufficient to treat growth in population as causing an increase in agricultural surplus by way of expanding the ‘effectual demand’. The intervention of income, to make demand ‘effectual’, is missing here. This section shows Steuart comprehending the logic of a set of inter-sectoral demand-supply relations, but he is unable to explain the causation of overall activity levels. The simultaneity in causation expresses itself as an interdependence of sectors particularly with the volume of surplus in agriculture and manufacturing reinforcing the activity levels of both sectors by providing the sources of demand (Yang 1994: 96, 102; also see Skinner 1963: 441).

A disequilibrium between quantity supplied (work) and quantity demanded implies that ‘either a part of the demand is not answered, or a part of the goods is not sold’ (Steuart 1767: 190). The latter is what Steuart emphasises – the possibility of a glut. When quantity supplied is greater than the quantity demanded,

the balance is overturned; because this diminishes the reasonable profits, or perhaps, indeed, obliges the workmen to sell below prime cost. The effect of this is, that the workmen fall into distress, and that industry suffers a discouragement; and this effect is certain.

(Steuart 1767: 191-2)

In other words, demand insufficiency, through a similar process as in Quesnay, leads to a fall in prices and profits and thereby dampens activity levels and employment (cf. Karayiannis 1994: 43 on how the lack of ‘effectual demand’ causes unemployment). His predecessor, Turgot, is also aware of the possibility of a glut occurring due to disorders in expenditure (see section 4.4).

Despite the ambiguity with respect to ‘multiplication’ in the augmentation of ‘effectual demand’, Steuart introduces ‘taste’ as another channel of increasing ‘effectual demand’. This, if visualized as autonomous of current incomes, becomes similar to the
autonomous consumption of landlords present in Cantillon (section 2.3). The link between
taste, demand and activity levels is visible in the passage from Steuart reproduced below.

In such countries where industry is made to flourish, the free hands ... will be employed in
useful manufactures, which, being refined upon by the ingenious, will determine what is
called the standard of taste; this taste will increase consumption, which again will multiply
workmen, and these will encourage the production of food for their nourishment.

(Steuart 1767: 46)

‘An increase in the farmer’s propensity to consume luxuries induces a corresponding
increase in the agricultural surplus – this aspiration effect is one of the most distinguishing
features of Steuart’s theory of economic growth’ (Akhtar 1978: 63; also see Yang 1994:
102-3 and Brewer 1997: 8). But what is it that causes an increase in the manufacturers’
propensity to consume agricultural products? Clearly, the process is not as simple or
straightforward as Akhtar describes it to be. Eagly (1961: 54) makes agricultural
productivity a function of the level of aspiration; this leads him to conclude that the level
of aspirations positively affect agricultural surplus directly and indirectly the
manufacturing surplus.

Furthermore, Eagly conceives of a point at which the population reaches its
‘optimum size’, whereby the level of aspiration will not raise labour productivity any
further and at this point, there is ‘an ideal distribution of the labour force between the two
sectors’ (Eagly 1961: 55). It is not clear how Eagly’s interpretation of Steuart’s aspiration
process works without the intermediation of income and employment; in the following
page, Eagly acknowledges the absence of explicit mechanisms in Steuart in this regard
(Eagly 1961: 56). Sen (1957: 38, 44-5) posits a clear-cut optimum of population which
Steuart supposedly attempted to determine; this view, like that of Akhtar, implicitly
assumes a given labour supply. Clearly, in Steuart, labour supply is positively related to the
agricultural surplus and therefore the kind of simple determination of activity levels and
employment discussed in Sen (1957) or modelled in Akhtar (1978; 1979) is not entirely
faithful to Steuart. Yang’s position is more nuanced and closer to Steuart; he notes that it
is the agricultural surplus which determines the population whereas agriculture and
manufacturing together determine overall employment (Yang 1994: 106). But Yang’s
conclusion in the same chapter is very similar to that of Akhtar (1978); Yang’s interpretation of Turgot, reminiscent of Cantillon and Quesnay, is that:

…the ‘effectual demand’ for ‘luxuries’ may be seen as the ‘main spring of the whole operation’, as it directly or indirectly determines the level of output, the amount of employment and the size of population in the economy, upon the dynamic relation between them.

(Yang 1994: 115-6)

But as Steuart observes:

[We cannot therefore say, that trade will force industry, or that industry will force trade; but we may say, that trade will facilitate industry, and that industry will support trade. Both the one and the other however depend upon a third principle; to wit, a taste for superfluity, in those who have an equivalent to give for it. This taste will produce demand, and this again will become the mainspring of the whole operation.]

(Steuart 1767: 151)

The interdependence or simultaneity between agriculture and manufacture stands exposed here yet again. And the ‘third principle’ could be read as Steuart dimly groping towards an autonomous demand notion, which would get him close to the Keynesian causation (cf. Aspromourgos 1996: 143). But as Aspromourgos writes, ‘it would be generous beyond sense to see this as a primitive theory of effective demand along Keynesian lines’ (Aspromourgos 1996: 143). This is so because Steuart does not possess a theory of saving or accumulation and his account of ‘effectual demand’ does not incorporate the mediating role of income or at least, it is not very clearly visible. Yang argues that Steuart’s notion of effectual demand resembles that of Keynes, which is, for the reason mentioned above, an untenable proposition (Yang 1994: 93). Although as Steuart also recognises, this sort of autonomous consumption is also conditional upon the inhabitants possessing an ‘equivalent’; in Cantillon, this could be landowners’ rents or could be reflected in the ability of landowners to vary their saving behaviour independent of current income levels (section 2.3).

Similar to his view on taste, Steuart writes that ‘the wants of mankind were said to promote their multiplication, by augmenting the demand for the food of the free hands, who, by supplying these wants, are enabled to offer an equivalent for their food, to the farmers who produced it’ (Steuart 1767: 151). Here, we again come across the same
indeterminate interdependence. In Cantillon and Quesnay, we find attempts to give a precise relation to these inter-sectoral relations, with Quesnay’s account a definite advance over that of Cantillon, despite Quesnay’s unsatisfactory treatment of profits.

5.5 Conclusion

Agricultural surplus occupies the centre stage in Steuart’s economics. Inter-sectoral demand-supply relations between agriculture and manufacture are what Steuart engages with mostly; but he is unable to provide a determinate solution. Nevertheless, his identification of a ‘third principle’, ‘a taste for superfluity’, a sort of autonomous consumption, gets him closer to the Keynesian causation. While he does grasp income as the crucial link which enables demand to translate into ‘effectual demand’, he does not pursue this connection further or provide an explanation. If he had, Steuart would have been moving in the direction of a multi-sectoral model based on the Keynesian principle of effective demand.

Similar to Cantillon and Turgot, it is the competition ‘between borrowers and lenders [which] occasions the rise and fall of the rate of interest’ (Steuart 1767: 451; also see 449, 453). Furthermore, as in Cantillon and Turgot, money is borrowed for both investment and luxury consumption (Steuart 1767: 451; cf. Sen 1957: 86; Yang 1994: 183-4). There is much discussion on money and banking, with the latter playing the role of a vehicle for savings, in Steuart; Books III and IV deal with these subjects. However, Steuart does not possess a clear notion of profits as a definite return on capital advanced and nor does he have a theory of saving and investment. Despite these theoretical inadequacies, Steuart recognises that it is supply which adapts to demand and that demand insufficiency poses a constraint on economic growth and development.
CHAPTER 6

Smith

Adam Smith’s *An Inquiry into the Nature and Causes of the Wealth of Nations* (WN hereafter) contains a rich account of processes causing economic growth and development. This account is built on the foundations provided by his predecessors and contemporaries, especially Quesnay and Turgot, but Smith advances much beyond them. Economic growth in Smith is caused by net saving and accumulation, expressed as the proportion of productive to unproductive labour. After laying down some preliminaries in section 6.1, section 6.2 presents a brief exposition of Smith’s theory of natural prices. In section 6.3, Smith’s growth dynamics is presented and in section 6.4, we ask whether the growth in productive capacity occasioned by the net investment is validated by an equivalent growth in aggregate demand. Section 6.5 concludes the chapter.

6.1 Introduction

For Smith, the net product (‘neat revenue’) is arrived at by deducting replacement investment from the gross product (‘gross revenue’) in an annual cycle of production (WN: 332). Replacement investment includes real wages, at customary subsistence levels,\(^{44}\) of the workers (cf. WN: 280, 283). But Smith’s ‘neat revenue’ does not always align perfectly with the concept of surplus in the usual sense because he includes in it the subsistence consumption of the inhabitants (cf. Vianello 1999: 154). This is made explicit in the passage quoted below.

The gross revenue of all the inhabitants of a great country, comprehends the whole annual produce of their land and labour; the neat revenue, what remains free to them after deducting the expence of maintaining; first, their fixed; and, secondly, their circulating capital; or what, without encroaching upon their capital, they can place in their stock reserved for immediate consumption, or spend upon their subsistence, conveniencies, and amusements.

(WN: 286-7)

Hence, the net product of Smith is not a strictly surplus category (cf. Aspromourgos 2009: 163). Despite this shortcoming, his conception of the net product is an advance over

\(^{44}\) Customary subsistence refers to needs which are socially and historically determined and is not to be treated as a strict biological magnitude (Stirati 1994: 35).
Cantillon, Quesnay, Turgot and Steuart because of them identifying the net product with the agricultural surplus. Petty is credited with inventing the concept of the social surplus—that part of gross output which is left over after deducting replacement expenditure (Aspromourgos 1996). And it is in Cantillon’s Essai that we come across the explicit use of the term ‘surplus’: ‘le surplus du produit’ (Essai: 7). In comparison with Quesnay and Turgot, who identifies surplus with agricultural surplus, despite making an advance over them, Smith fails to subtract wages from the net product.

Long before Smith, Quesnay had recognised the inter-sectoral relations between agriculture and manufacturing. Smith writes: ‘The capital error of this system [Physiocracy], however, seems to lie in its representing the class of artificers, manufacturers and merchants, as altogether barren and unproductive’ (WN: 674). This statement of Smith is not entirely correct because Quesnay does recognise the necessary role played by manufacturing in production and economic growth; it is luxury consumption of manufactured products that Quesnay considers detrimental for activity levels and economic growth (see section 3.4). Both agriculture and manufacturing sectors are necessary in Smith’s system. They are locked together in a singular system and neither of them can produce anything alone. These inter-sectoral relations are also much emphasised in Steuart (section 5.1).

Evocative of Cantillon, Smith points out that the primary use to which land must be put is the cultivation of commodities which provide food to the society. When there is surplus in such sectors, the surplus labour can be employed in ‘satisfying the other wants and fancies of mankind’ (WN: 180, also see 192-3). More emphatically, ‘[u]nless a capital was employed in furnishing rude produce to a certain degree of abundance, neither manufactures nor trade of any kind could exist’ (WN: 360; see also Rosenberg 1968: 362).

Smith’s definition of productive and unproductive labour is not only crucial for his growth theory but also performs an important role in the growth theories of Sismondi and Malthus.

There is one sort of labour which adds to the value of the subject upon which it is bestowed: There is another which has no such effect. The former, as it produces a value, may be called productive; the latter, unproductive labour.
The labour of the menial servants falls under unproductive labour \((L_U)\) because, according to Smith, they do not add value and their services ‘generally perish in the very instant of their performance’ \((WN: 330)\). Productive labour \((L_P)\) refers to those kinds of labour which adds value to the product and are not perishable; transportation, wholesaling and retailing add value and are \(L_P\) \((WN: 361-3;\) for a critical evaluation of these concepts, see Aspromourgos 2009: 164-9; also see Vianello 1999: 151, 158-60). In the next section, the theory of natural prices and distribution in Smith is presented in brief.

### 6.2 Natural prices and income distribution

In the spirit of classical economists before him such as Cantillon, Quesnay and Turgot, Smith distinguishes between market prices and natural prices with the latter being the object of study in economic theory owing to the persistence of forces which determine them. Natural prices are equilibrium prices to which market prices gravitate. Assuming ‘free competition’ – the free movement of labour and capital between sectors – there will be a tendency towards a uniform rate of profit on capital\(^{45}\) and hence for natural prices to prevail; extraordinary profits (and losses) are a temporary phenomenon \((WN: 77-8,\) also see 116, 201). This is truly a significant theoretical achievement, with profits as a return on capital advanced incorporated into natural prices, although the credit for this goes to Turgot who already possessed such a theory of value (see section 4.2). The definition of natural price and market price in Smith is as follows.

> When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour, and the profits of the stock employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price. \(\text{(WN: 72)}\)

> The market price of every particular commodity is regulated by the proportion between the quantity which is actually brought to market, and the demand of those who are willing to pay the natural price of the commodity ... such people may be called the effectual demanders, and their demand the effectual demand.

\(^{45}\) In Book I, chapter 10, Smith describes the competitive economy as a system with a structure of profit rates \((WN: 213-22)\). In other words, he discusses profit rate differentials. The tendency towards a uniform rate of profit must therefore be treated as an abstraction.
Market prices ‘may either be above, or below, or exactly the same with its natural price’ (\textit{WN}: 73). The natural price ‘is, as it were, the central price, to which the prices of all commodities are continually gravitating’ (\textit{WN}: 75). This happens because the supply of commodities always tends to adapt to their demand.

In all commodities which are produced by human industry, the quantity of industry annually employed is necessarily regulated by the annual demand, in such a manner that the average annual produce may, as nearly as possible, be equal to the average annual consumption.

\textit{(WN: 132)}

... the average produce of every sort of industry is always suited, more or less exactly, to the average consumption; the average supply to the average demand.

\textit{(WN: 206)}

When the supply exceeds demand, the labour and/or capital is withdrawn; when demand is greater than supply, more labour and/or capital is employed (\textit{WN}: 74-5). Such changes in employment of labour and capital, in an environment of free competition, ensure that prices tend towards their natural prices.

Real wages can be above customary subsistence if the economy is growing and when the bargaining power of workers is strengthened by the consequent growth of labour demand relative to labour supply. That is, there is no tendency for real wages to gravitate towards customary subsistence. Smith does allow the possibility of workers engaging in luxury consumption. For instance, when discussing taxation, Smith notes that ‘it is the luxurious and not the necessary expence of the inferior ranks of people that ought ever to be taxed’ (\textit{WN}: 888). Strict subsistence forms the floor of the real wage which includes both ‘necessaries and conveniencies of life’ (\textit{WN}: 51, 85-6). Real wages are higher in a growing economy than a stagnant one (\textit{WN}: 53). Smith recognises the role of collusion by workers in the determination of wages (\textit{WN}: 85; cf. Stirati 1994: 51 and Aspromourgos 2010: 1173). These factors together make the real wages in Smith’s framework rather flexible and not anchored to any subsistence wage (cf. Aspromourgos 2009: 199 or Aspromourgos 2010: 1173). In Steuart as well, the subsistence wage can change and rise over time mainly through changes in habits and education (see section 5.2). Both these
factors presuppose the necessity of the market wage to be greater than the natural wage for a sufficient period of time until the natural wage itself rises – ‘a kind of hysteresis of the real wage’ (Aspromourgos 2009: 300, n. 59).

Similarly, Smith does not offer any definite theory concerning the level towards which the profit rates might gravitate (Aspromourgos 2009: 100). There is a uniform net rate of return on capital advanced, which includes machinery, material inputs and wage goods. In Smith, profits bear a definite proportion to the capital advanced (WN: 66). Profits are not quasi-wages as in Cantillon but ‘are regulated altogether by the value of the stock employed’ (WN: 66). They ‘must always bear some proportion to the capital’ (WN: 68). With this we complete our brief analysis of value and distribution in Smith. Next we undertake a detailed analysis of his growth dynamics.

6.3 Growth dynamics

According to Smith, economic growth is determined by the $L_P/L_U$ proportion and/or productivity growth of $L_P$ (WN: 10, 343). The number of additional productive labourers employed depends on how much of the net product is saved, which, in Smith, amounts to the same thing as (net) capital accumulation. [Such a special assumption, where planned saving and planned investment are one and the same thing, is to be found in Turgot too (see section 4.3).] We are ignoring here the role of the state apparatus present in Smith’s political economy. Furthermore, productivity rises because of a greater division of labour and improved machinery, both of which require a prior increase in capital accumulation. It will be seen presently that the rate of saving, the volume of net product and the division of labour are the three main factors which determine the rate of growth of the economy in Smith (cf. Aspromourgos 2009: 151, 191).

If rents are excluded, the entire net product accrues to the capitalists as profits. All net accumulation and luxury consumption is out of the net product. Depending on the propensity to save – the proportion of profits devoted to saving rather than consumption by profit recipients – the net product will be allocated between net accumulation and luxury consumption. Net accumulation entails an addition to $L_P$ and luxury consumption entails an addition to $L_U$, either as labour inputs or material inputs or both (cf. Aspromourgos 2009: 178). As Smith clearly puts it,
The rent of land and the profits of stock are ... the principal sources from which unproductive hands derive their subsistence. These are the two sorts of revenue of which the owners have generally most to spare. They might both maintain indifferently either productive or unproductive hands.

(\textit{WN: 333})

However, owing to the inter-sectoral relations, not all the labourers producing wage goods and material inputs can be considered $L_P$ because some of their produce enters luxury consumption or the production of luxury commodities.

The importance of saving for Smith’s growth theory has already been highlighted. Smith emphasises that saving is the ‘immediate cause of the increase of capital’ since ‘[c]apitals are increased by parsimony’ (\textit{WN: 337}). He goes on to write that

\[\text{[p]arsimony, by increasing the fund which is destined for the maintenance of productive hands, tends to increase the number of those hands whose labour adds to the value of the subject upon which it is bestowed. It tends therefore to increase the exchangeable value of the annual produce of the land and labour of the country.}\]

(\textit{WN: 337})

Furthermore, he supposes that saving is immediately translated into investment.

That portion which he annually saves, as for the sake of the profit it is immediately employed as capital, is consumed in the same manner, and nearly in the same time too ... by labourers, manufacturers, and artificers, who re-produce with a profit the value of their annual consumption.

(\textit{WN: 338})

Winch (1963: 391) terms this the ‘saving is spending’ doctrine. Whatever is saved is therefore employed in sectors employing productive labour by assumption. Smith’s identification of saving decisions as investment decisions allows him to sidestep the coordination of saving and investment decisions in a genuinely decentralized economy where saving and investment are undertaken by different agents (see also Aspromourgos 2009: 193).

Positive saving will result in an increase in the total material inputs and labourers productively employed in the next time period. That is, both the gross product of $L_P$ and the $L_P$ employment rise. The following can be said about the determinants of growth in
Smith. First, growth is a positive function of the saving propensity. Second, if real wages rise, together with the supposition that they are approximately entirely consumed, growth is slowed down *ceteris paribus* because the surplus available for accumulation is reduced. There is a problem here since Smith favours rising real wages which he associates with strong economic growth. Because Smith’s growth theory requires a gap between real wage and labour productivity, rising real wages cause no problem if and only if labour productivity is also rising. (Furniss 1920: 210 documents studies which suggest that during Adam Smith’s time, real wages rose, initially because of increase in money wages and subsequently because of decrease in food prices). Third, an improvement in labour productivity raises economic growth. Further, if material inputs become more productive, growth rises. Hicks (1965: 36-38), Eltis (1984: 91-94) and Aspromourgos (2009: 173-6) also reach a similar conclusion on the determinants of economic growth in Smith. Therefore, economic growth in Smith is associated with real wages rising but at a pace slower than that of productivity growth.

Smith’s observation regarding the relation between $L_p/L_u$ proportion, the outcome of positive saving, and economic growth is captured in the following.

Both productive and unproductive labourers, and those who do not labour at all, are all equally maintained by the annual produce of the land and labour of the country. This produce, how great soever, can never be infinite, but must have certain limits. According, therefore, as a smaller or greater proportion of it is in any one year employed in maintaining unproductive hands, the more in the one case and the less in the other will remain for the productive, and the next year’s produce will be greater or smaller accordingly....

*(WN: 332)*

[Unproductive labour] as they themselves produce nothing, are all maintained by the produce of other men’s labour. When multiplied, therefore, to an unnecessary number, they may in a particular year consume so great a share of this produce, as not to leave a sufficiency for maintaining the productive labourers, who should reproduce it next year. The next year’s produce, therefore, will be less than that of the foregoing, and if the same disorder should continue, that of the third year will be still less than that of the second.

*(WN: 342, also see 71 and 339)*

In other words, if the saving rate is sufficiently low, economic growth can turn negative. The volume of gross product in a Smithian economy depends on the extent of (gross)
capital accumulation. The volume of capital accumulation is determined by the proportion of gross product which employs $L_P$. The ratio of capital accumulation to luxury (non-capital) consumption finds an expression in Smith as the ratio of $L_P$ to $L_U$.\footnote{Since these are gross variables, depreciation does not figure here directly. However, in each period of production, the values of productive and unproductive labour will take into account depreciation costs.}

The proportion ... between the productive and unproductive hands, depends very much in every country upon the proportion between that part of the annual produce ... [which] is destined for replacing a capital, and that which is destined for constituting a revenue....

(WN: 333-4)

If the entire gross product is allocated to the production of wage goods and material inputs, there will be no luxury goods production. This could perhaps be viewed as the maximum growth rate possible in a Smithian growth model. However, such a state is neither socially nor politically feasible, for $L_U$ comprises activities relating to the provision of education, medical services and legal infrastructure (cf. WN: 330-1; Aspromourgos 2009: 167-8; see Viner 1927 for a detailed examination of the role of the government in Smith). In Smith’s political economy, these services contribute to the reproduction of the worker and therefore will have to be produced. By referring to ‘an unnecessary number’ of $L_U$ (WN: 342; quoted above), Smith presupposes that there is a (positive) necessary number.

The positive association between growth in labour productivity and economic growth has already been made explicit. Labour productivity whereby ‘the same quantity of industry produces a much greater quantity of work’ leads to an increase in the gross product.

The quantity of industry, therefore, not only increases in every country with the increase of the stock which employs it, but, in consequence of that increase, the same quantity of industry produces a much greater quantity of work.

(WN: 277)

Also, the invention of machines which ‘facilitate and abridge labour, and enable one man to do the work of many’ generate economic growth (WN: 17; cf. Kurz 2010: 1188; Aspromourgos 2012b: 484-5). Labour productivity rises when inventions occur and
because of ‘division of labour’. The division of labour, however, is limited by the ‘extent of the market’. Smith writes:

[a]s it is the power of exchanging that gives occasion to the division of labour, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market.

(WN: 31)

This observation of Smith reflects the role played by demand in determining the scope for division of labour. That is, if the ‘extent of the market’ grows, the possibility of obtaining higher output from a greater division of labour is higher (cf. Groenewegen 1977: 163). This is perhaps the most notable reference which points to a demand-side growth theory in Smith with the ‘extent of the market’ being treated as the relatively more autonomous factor (see also Aspromourgos 2009: 138-9 or Aspromourgos 2010: 1171).47

Moreover, one factor, largely autonomous with respect to current levels of gross output, contributes to the growth of ‘the extent of the market’: foreign demand. The ‘extent of the market’ widens with a growth in foreign demand. Myint (1958: 318 and 1977: 242) terms this the ‘vent for surplus’.48 An increase in foreign demand supports a greater division of labour and validates the increase in the gross outputs produced. The key passage of Smith in this regard is as follows.

By opening a more extensive market for whatever part of the produce of their labour may exceed the home consumption, it encourages them to improve its productive powers, and to augment its annual produce to the utmost, and thereby to increase the real revenue and wealth of society.

(WN: 447)

This indicates that Smith considers foreign demand as a distinct part of aggregate demand or ‘extent of the market’ which has the capacity to raise output levels (cf. Winch 1963: 393; Young 1928: 537; Kurz 1992: 480 discusses the role of foreign demand in the case of joint

47 However, Young sees a strong element of mutual causation in this relation: ‘the division of labour depends on the extent of demand, but the extent of demand also depends upon the division of labour’ (Young 1928: 529). It is not clear how a greater division of labour can widen the extent of the market in Smith, unless Young is imputing some sort of marginalist idea to Smith wherein the demand adapts to supply.

48 This phrase, Myint mentions, is borrowed from Williams (1929) who in turn took it from a passage from J. S. Mill’s Principles (Myint 1958: 318n).
production in Smith). As Myint writes, ‘[t]he function of trade here is ... to provide the new effective demand for the output of the surplus resources which would have remained unused in the absence of trade’ (Myint 1958: 321; also see Myint 1977: 245; see WN: 372 quoted below). Such a view of foreign trade linking ‘extent of the market’ with production and productivity also suggests a demand-led determination of activity levels and growth. Steuart also notes the important role foreign consumption plays in the determination of activity levels and employment (see section 5.4). Two more excerpts from Smith which point out the role of foreign demand are presented below.

When the produce of any particular branch of industry exceeds what the demand of the country requires, the surplus must be sent abroad, and exchanged for something for which there is a demand at home. Without such exportation, a part of the productive labour of the country must cease, and the value of its annual produce diminish.

(WN: 372)

Those goods, which are part of the produce of the land and labour of Great Britain, having no market at home, and being deprived of that which they had abroad, must cease to be produced.

(WN: 373)

The issue of global coherence arises when foreign demand is seen as a growth determinant. It is true that ultimately foreign demand is a consequence of other countries’ domestic demand and to that extent foreign trade is a zero-sum game. However, from the point of view of the nexus between market size and productivity, as in Smith, the outcome is not necessarily zero-sum: a shift from closed economies to global trade enables everyone to specialize more, and therefore can increase labour productivity everywhere, with net gains to everybody.

To sum up, the two major growth determinants in Smith have been identified: the \( L_P/L_U \) ratio (equivalent to the saving propensity) and the productivity growth of \( L_P \). A widening of the market, through foreign demand or otherwise, has the capacity to validate output increases arising from higher labour productivity.\(^{49}\) But Smith offers no clear routes through which this increase in demand might occur.

\(^{49}\) But Smith notes:
6.4 Consumption and economic growth

Given the saving propensity, economic growth is positive when labour productivity exceeds the real wage and growth is rising when the change in labour productivity exceeds the change in the real wage. What is there in Smith’s theory to ensure that the increasing output will be entirely demanded? In other words, how does the increase in supply between time $t$ and $t+1$ find an equivalent growth of demand? Given that real wages and hence labour consumption is less than the output per worker, what guarantees this matching of demand and supply over time in Smith’s framework? In Smith, this gap between the output per worker and real wages is exactly filled up by investment demand (see below). The equilibration of demand and supply and the associated tendency of market prices to gravitate towards natural prices is consistent with supply adapting to demand (as in Smith) as well as with demand adapting to supply (as in marginalist economics).

One possible answer is that the rise in real wages (which Smith foresees in liberal capitalism) enables a rise in consumption. But this does not solve the problem of the gap. Smith predicts that liberal capitalism will lead to rising real wages but how this comes about is not clear in his theoretical framework. For Smith does allow for a hysteresis of the real wage, where the natural wage persistently lies above the subsistence wage thereby rendering the aspirations of workers effective (see Aspromourgos 2010: 1179-80; cf. Stirati 1994: 57-8). It seems that, for Smith, the rise in real wages legitimates the adoption of liberal capitalism despite his growth theory requiring a gap between real wage and labour productivity. Perhaps Steuart’s account (section 5.2), more than that of Cantillon (section 2.3), will add to the passages in Smith’s Theory of Moral Sentiments in constructing a classical theory of consumption (cf. Gram 1998: 166).

[i]n a country which had acquired that full complement of riches which the nature of its soil and climate, and its situation with respect to other countries allowed it to acquire; which could, therefore, advance no further, and which was not going backwards, both the wages of labour and the profits of stock would probably be very low.

(WN: 111)

That is, natural scarcities could start emerging in a growing economy in Smith’s framework (cf. Aspromourgos 2010: 1172). Diminishing returns, it will be seen, play a crucial role in Ricardo’s theory of growth (chapter 7).

50 Smith, however, does not have a definite answer as to whether or not the real wages will actually rise.
As Smith identifies decisions to save with decisions to invest, the gap between productivity and real wage generates a pool of savings which are *automatically*, so to speak, invested. Savings equal the value of output minus the value of wages and luxury consumption. That is, owing to the identification of planned saving with planned investment, Smith is able to bypass the problem arising from insufficient aggregate demand. In other words, saving directly creates investment demand without any coordination issues. Hicks treats Smith’s identification of planned saving with planned investment as a consequence of his assuming homogeneous capital, and goes on to state:

...by overlooking the problem of the distribution of (gross) investment, it was easy to jump to the conclusion that saving is necessarily invested. The ‘frugal man’ must put his savings into ‘corn’; for, in the model, there is nowhere else to put them.

(Hicks 1965: 41)

Hicks also considers such an assumption to be ‘static’ in the sense that Smith’s model ‘paid no attention to plans and expectations’ (Hicks 1965: 42). To state that Smith did not pay attention to ‘plans and expectations’ is not correct, especially given the textual evidence relating to profit earners’ attempts at adapting their supply to the demand (see *WN*: 206 quoted above). But Hicks is right in positing that savers have nowhere else to put their savings besides ‘corn’, understood as a proxy for homogeneous capital. Aspromourgos (2009: 195) takes a similar view when he writes:

[b]y proceeding as if an act of saving is identical with an act of investment (saving is spending), it is as if saving decisions were all akin to a corn farmer who ‘saves’ by putting aside a part of the crop, for use as seed input and labour consumption in the next production cycle, so that the farmer’s abstaining from consumption is synonymous with investment or accumulation (with no wider exchange relations required).

Furthermore, in Smith, an increase in investment manifests itself as an increase in $L_P$. This happens because labour supply is assumed to grow in response to labour demand growth occasioned by a growth in investment. The increased saving and accumulation, so to speak, ‘funds’ the expansion of labour supply, in a very similar fashion as in Cantillon (cf. *Essai*: 23).

The demand for those who live by wages, it is evident, cannot increase but in proportion to the increase of the funds which are destined for the payment of wages.

(*WN*: 86)
...the demand for men, like that for any other commodity, necessarily regulates the production of men; quickens it when it goes on too slowly, and stops it when it advances too fast.

(WN: 98)

...men, like all other animals, naturally multiply in proportion to the means of their subsistence....

(WN: 162)

Labour supply adapts to labour demand, indicated by the availability of the ‘means of their subsistence.’ This also points to the endogeneity of labour supply, at least, in the very long run.

6.5 Conclusion

Smith’s treatment of identifying planned saving with planned investment makes his growth theory unsatisfactory in the understanding of economic growth in a decentralized economy. As a consequence of such a treatment, Smith’s ‘growth theory is really a theory of how production capacity can grow, or one may say, a theory of potential growth’ (Aspromourgos 2009: 195). However, within this theory, labour demand is the relatively autonomous factor with labour supply adapting to it and there are long run tendencies towards the full-employment of labour, but the causation is reverse to that found in marginalist economics.

To conclude, what is the role of consumption in the growth theory of Smith? The aggregate consumption demand by workers endogenously rises when investment increases. This happens because labour supply adapts to labour demand and partly because of rising real wages. While the former is clearly outlined in his theory, the latter is what he predicts liberal capitalism will bring about. The gap between output and real wages (and unproductive consumption) translates into investment; this process is self-perpetuating given the saving-investment identity. To that extent, insufficiency of consumption or of aggregate demand does not pose problems for Smith’s theory of growth and the absence of a theory of saving and investment coordination is a great limitation of his theory. Moreover, investment, in so far as it is a demand for additional production capacity, cannot ultimately be autonomous of consumption.
CHAPTER 7

Ricardo

In David Ricardo’s *On the Principles of Political Economy, and Taxation*, a detailed investigation is undertaken to determine the laws governing the distribution of the social product. Acknowledging the advances made by Turgot, Steuart, Smith, Say and Sismondi in the Preface, Ricardo chooses to focus on the theory of distribution since he considers the previous work on this issue to be unsatisfactory (Ricardo 1951: 5). He accomplishes this task by making extensive use of the method and concepts employed by the classical economists, particularly those by Smith (see Aspromourgos 2014). This includes the distinction between natural price and market price of commodities and labour, a theory of value founded on value in exchange as opposed to value in use and based on them, a theory of economic growth. After laying out some preliminaries in section 7.1, Ricardo’s theory of value and distribution is presented in a concise manner (section 7.2) and his theory of growth is discussed in section 7.3. Section 7.4 assembles material in Ricardo which is suggestive of a constraining role for demand in his growth dynamics. In section 7.5, we conclude with a critical evaluation of Ricardo’s assumption that ‘demand is only limited by production’ (Ricardo 1951: 290) in the context of his growth theory.

7.1 Introduction

The surplus in Ricardo’s schema resembles that of the previous classical economists. His formulation of the surplus in labour terms, in fact, bears a close correspondence with that of Cantillon: ‘[i]f five millions of men could produce as much food and clothing as was necessary for ten millions, food and clothing for five millions would be the net revenue’ (Ricardo 1951: 348). The gross revenue in an economy is distributed among three social classes – landowners, capitalists (agricultural and manufacturing) and labourers (Ricardo 1951: 5). The surplus or ‘net revenue’ is realized in the form of profits and rents.

The whole produce of the land and labour of every country is divided into three portions: of these, one portion is devoted to wages, another to profits, and the other to rent. It is

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51 Cantillon writes: ‘the Labour of 25 grown persons suffices to provide 100 others, also grown up, with all the necessaries of life according to the European standard’ (*Essai*: 87).
from the two last portions only, that any deductions can be made for taxes, or for savings; the former ... constituting always the necessary expenses of production.

(Ricardo 1951: 347-8)

In other words, the ‘net revenue’ can be used for net capital accumulation, unproductive consumption or can accrue to the government as taxation proceeds. As long as capital is replaced, production will continue on the same scale: ‘[t]he capital of a country consists of its commodities, and as these would be the same as before, reproduction would go on at the same rate’ (Ricardo 1951: 270).

How is capital defined by Ricardo? According to him,

[c]apital is that part of the wealth of a country which is employed in production, and consists of food, clothing, tools, raw materials, machinery, &c. necessary to give effect to labour.

(Ricardo 1951: 95)

Capital refers to the produced means of production as in other classical economists. Capital is divided into a fixed and a circulating portion. Two industries might employ the same amount of capital but their proportions between fixed and circulating capital can vary (Ricardo 1951: 32).

Land occupies the most significant non-producible (truly scarce) means of production in Ricardo. With every successive application of additional capital and labour on homogeneous land, the gross output of commodities with land as an input increases at a diminishing rate. This is the case of intensive margins.

It may perhaps be found, that by doubling the original capital employed on No. 1, though the produce will not be doubled, will not be increased by 100 quarters, it may be increased by eighty-five quarters, and that this quantity exceeds what could be obtained by employing the same capital, on land No. 3 [which is inferior to land No. 1].

52 This distinction, by its very nature, is a relative one, where the durability of capital depends on the length of the production period. Ricardo recognises that the distinction depends on the extent of durability: ‘the capital of a country is either fixed or circulating, according as it is of a more or of a less durable nature. It is difficult to define strictly, where the distinction between circulating and fixed capital begins; for there are almost infinite degrees in the durability of capital’ (Ricardo 1951: 150).
Thus, he writes: ‘for the land being limited in quantity, and differing in quality, with every increased portion of capital employed on it, there will be a decreased rate of production...’ (Ricardo 1951: 98). With cultivation on land of different qualities, rent arises when a less fertile land is employed in order to support an increased population; this is the case of extensive margins (Ricardo 1951: 70). Next, we discuss Ricardo’s theory of value and distribution.

7.2 Theory of value and distribution

Working within the tradition of classical economics, Ricardo draws a distinction between natural and market prices, with the latter gravitating towards the former (see Ricardo 1951: 88-92). Or, using the ‘cost of production’ as synonymous with natural price,

\[ \text{[it is the cost of production which must ultimately regulate the price of commodities, and not, as has been often said, the proportion between the supply and demand: the proportion between supply and demand may, indeed, for a time, affect the market value of a commodity, until it is supplied in greater or less abundance, according as the demand may have increased or diminished; but this effect will be only of temporary duration.} \]

(Ricardo 1951: 382)

The temporary nature of market prices and the persistence of natural prices are visible in the above passage. From the previous chapters (sections 3.2 and 5.2), it is clear that Quesnay and Steuart are unable to provide a satisfactory account of natural prices for a capitalist economy due to their difficulties in conceptualizing profits as a definite rate of return on capital advanced. Therefore, profits in their accounts are explained by recourse to transitory market variables. It is a similar story in Cantillon (section 2.2). Turgot and Smith (sections 4.2 and 6.2), on the other hand, possess a satisfactory account of profits, as a definite rate of return on capital advanced and this profit rate is secured as a permanent part of natural prices.

Ricardo’s economics is built on the labour theory of value. It is summarised vividly in the following excerpt.

\[ \text{The real price of a commodity is here properly stated to depend on the greater or less quantity of labour and capital (that is, accumulated labour) which must be employed to produce it.} \]
Therefore, Ricardo states that

[e]conomy in the use of labour never fails to reduce the relative value of a commodity, whether the saving be in the labour necessary to the manufacture of the commodity itself, or in that necessary to the formation of the capital, by the aid of which it is produced.

(Ricardo 1951: 26)

Conversely, an increase in labour required directly or indirectly for production necessarily raises the natural price of a commodity: ‘[i]n all cases, [prices of] commodities rise because more labour is expended on them...’ (Ricardo 1951: 118). But note that this is the case if and only if the capital-labour ratios are the same in all the sectors. The value of corn\(^\text{53}\) in Ricardo is determined by the quantity of labour required in cultivating corn on land which pays no rent: ‘the price of corn is regulated by the quantity of labour necessary to produce it, with that portion of capital which pays no rent’ (Ricardo 1951: 110).\(^\text{54}\) That is, landlords’ rents do not enter the value of corn. The natural prices of commodities are determined by and are equal to the quantity of labour required directly and indirectly in their production.

Temporary disequilibrium (suppose, an excess demand) in a particular sector raises the rate of profit thereby attracting labour and capital from other sectors (Ricardo 1951: 91). ‘It is through the inequality of profits, that capital is moved from one employment to another’ (Ricardo 1951: 119). ‘This restless desire on the part of all the employers of stock, to quit a less profitable for a more advantageous business, has a strong tendency to equalize the rate of profits of all...’ (Ricardo 1951: 88). This tendency is somewhat captured by Cantillon (section 2.2) when he discusses the entry and exit of entrepreneurs but is completely absent in Quesnay (section 3.2) where there is no mention of capital mobility between the productive and sterile sectors. It is quite ambiguous in Steuart (section 5.2) whereas in Turgot (section 4.2) and Smith (section 6.2), this tendency of capital and labour to flow freely across sectors is explicit. Ricardo recognises that this process of equalization

\(^{53}\) Corn, being an important part of the customary subsistence of workers, is frequently used by Ricardo while explaining several phenomena. Corn is a necessary commodity and is used as a proxy for agricultural commodities as a whole (cf. King 2013: 62).

\(^{54}\) As Ricardo writes while discussing profits, ‘in all countries, and all times, profits depend on the quantity of labour requisite to provide necessaries for the labourers, on that land or with that capital which yields no rent’ (Ricardo 1951: 126).
of profit rates with output supplies adapting to sectoral output demands can be drawn-out\(^{55}\) and can render workers unemployed especially if industries make use of a greater proportion of fixed than circulating capital (see Ricardo 1951: 266 outlining the effects of a ‘revulsion in trade’; also see 268-9).

Wages, the price of labour, like the prices of other commodities, has a ‘natural’ and a ‘market’ rate. The ‘natural price of labour’ refers to the amount of money wages which enables the labourer to consume ‘the quantity of food, necessaries, and conveniences [which] become essential to him from habit...’ (Ricardo 1951: 93; emphasis added). The real wage ‘essentially depends on the habits and customs of the people’ (Ricardo 1951: 96-7; cf. Stirati 1999: 147; King 2013: 71). But Ricardo possesses no account of how these customs and the associated consumption patterns might undergo a change with economic growth (cf. Eltis 1999: 97). Neither does Smith, before him, elucidate how the real wage might rise despite him envisaging liberal capitalism to produce a rise in the real wage over time. Steuart possesses a clear idea of aspirations but it is not well integrated with his growth theory (section 5.4).

At the natural price of labour, the population is able ‘to subsist and to perpetuate their race, without either increase or diminution’ (Ricardo 1951: 93); note that this makes no mention of whether the entire labour force is fully employed or not. Like the gravitation of market prices of commodities to their natural prices, so is the case with labour: ‘[h]owever much the market price of labour may deviate from its natural price, it has, like commodities, a tendency to conform to it’ (Ricardo 1951: 94). During the process of economic growth, the market price of labour can rise above its natural price if the demand for labour is greater than its supply (Eltis 1984: 201-2, 205 argues that wages are at their natural levels only when net accumulation is zero which occurs at the stationary state\(^{56}\) following Hicks & Hollander 1977 and Casarosa 1987). Ricardo points to the possibility of

\(^{55}\) Sismondi possesses an account of the distress caused to labour during this process of adjustment (see chapter 8).

\(^{56}\) Such an interpretation has marginalist undertones; as Stirati writes, ‘Ricardo’s reference to a population that constantly reproduces itself without increase or decrease is not meant to indicate a stationary state, but a normal position of the economy’ (Stirati 1994: 145). In other words, it refers to an equilibrium condition (with the supply of labour adapting to the demand for labour) and not necessarily to a stationary state. This characterization is also consistent with the presence of permanent labour unemployment as is the case in Ricardo.
a permanent rise in the real wage if the ‘natural’ wage rises along with a rise in the ‘market’ wage: ‘[t]hus, then, with every improvement of society, with every increase in its capital, the market wages of labour will rise; but the permanence of their rise will depend on the question, whether the natural price of labour has also risen...’ (Ricardo 1951: 96; see also 94-5). Casarosa (1987: 39) overstates this possibility in Ricardo and argues that during the growth process, the market wage is always greater than the natural wage (also see Stirati 1999: 157-61 for a critique). As noted before, this possibility is visible in both Steuart and Smith but not well integrated into their growth theories. Compare this to workers in a Cantillonian economy wherein their consumption changes only out of necessity. And Ricardo does consider the possibility of workers sharing in the ‘net produce’ which could be saved or consumed by them thereby indicating that wages are at customary subsistence levels. Smith also allows the possibility of workers engaging in luxury consumption (WN: 888; section 6.2).

In contrast to Smith who posits a theory of value where the wage rate and rate of profit could vary independently of each other, Ricardo’s value theory assigns an inverse relationship to them for a given technique of production. He writes: ‘every diminution in the wages of labour raises profits, but produces no effect on the price of commodities’ (Ricardo 1951: 133; cf. 111). Natural wages can increase through two different routes: (1) an increase in the real wage and (2) an increase in the natural price of corn, the major consumption item of workers. For the former to occur, the market wage has to be

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57 In addition, the view adopted by Hicks & Hollander 1977 and Casarosa 1978 appears to be a superimposition of marginalist principles, namely that of the wage rate being entirely determined by the demand and supply of labour, on to Ricardo’s economics (cf. Klingen 1998).

58 Ricardo (1951: 348n) writes: ‘as more is generally allotted to the labourer under the name of wages, than the absolutely necessary expenses of production. In that case a part of the net produce of the country is received by the labourer, and may be saved or expended by him; or it may enable him to contribute to the defence of the country.’

59 The value of commodities in Smith is broken down into wages, rents and profits (WN: chapter 6) whereas in Ricardo, the value of commodities ‘is divided into two portions only: one constitutes the profits of stock, the other the wages of labour’ (Ricardo 1951: 110). By removing rents, Ricardo eliminates one degree of freedom and is therefore able to correctly establish the inverse relation between real wages and the rate of profit (cf. Aspromourgos 2014). The removal of the rental share from the gross product, however, is not sufficient to derive the wage-profit inverse; to get to the wage and profit rates, the knowledge of capital-output ratios is necessary which Ricardo cannot satisfactorily deal with due to his reliance on the labour theory of value (see below for a detailed discussion).
persistently above the natural wage which reflects disequilibrium in the demand and
supply of labour with the growth of labour demand being above that of its supply (see also
Stirati 1999: 155). The latter increases when additional corn is cultivated to feed an
increased population; this arises from diminishing returns associated with land in Ricardo.
Using a simple algebraic illustration, the inverse relation between real wage and the rate
of profit is explained.

\[
\text{rate of profit } (r) = \frac{\text{net profits}}{\text{value of capital advanced}}
\]

\[
= (\frac{\text{net profits}}{\text{value of output}}) \times (\frac{\text{value of output}}{\text{value of capital advanced}})
\]

\[
= \frac{\text{profit share}}{\text{capital-output ratio}}
\]

Let aggregate wages equal \(wL\), the product of the money wage and total homogeneous
employment and \(pQ\) the value of output, the product of the commodity price and gross
output. Therefore,

\[
r = \frac{1-wL/pQ}{\text{capital-output ratio}}
\]

\[
= \frac{1-(w/p)(L/Q)}{\text{capital-output ratio}}
\]

As Ricardo treats wages as capital, when the real wage \((w/p)\) increases, it lowers the
numerator and raises the denominator thereby leading to a fall in \(r\) (cf. Eltis 1984: 192).
Strictly speaking, the inverse relationship in Ricardo is between the labour time required
to produce the real wage and the rate of profit. Therefore, the production conditions in
the luxury producing sectors do not affect the rate of profit (cf. Eltis 1984: 197). However,
if capital-labour ratios are not uniform across all the sectors, then a ‘rise in the wages of
labour cannot fail to affect unequally, commodities produced under such different
circumstances’ and hence also the values of non-wage capital so the change in capital-
output ratio becomes indeterminate (Ricardo 1951: 32; cf. 30, 38). But if capital-labour
ratios are uniform, an increase in the wage affects all prices equally and therefore the
exchange value of commodities remains unchanged (cf. Eltis 1984: 183). Only a change in
the methods of production or the real wage can affect \(r\). This finding directly contrasts with
that of Smith who argued that competition of capitals will lead to a fall in $r$. As Ricardo writes:

Adam Smith, however, uniformly ascribes the fall of profits to accumulation of capital, and to the competition which will result from it, without ever adverting to the increasing difficulty of providing food for the additional number of labourers which the additional capital will employ.

(Ricardo 1951: 289)

This particular development of value theory by Ricardo implies that distributive variables are bound together by the given technology, and that the wage rate and profit rate cannot vary independently of each other (cf. Kurz 2010: 1193). It should be noted that Ricardo supposed the inverse relationship between the proportional wage and the rate of profit to hold not only with a given technology, but also in changing technological environments (see Kurz 2010).

Although rents do not enter into the determination of value in Ricardo, the evolution of aggregate rents plays a role in his growth dynamics. Therefore, the determination of rents is of interest. Rent ‘is not in proportion to the absolute fertility of the land in cultivation, but in proportion to its relative fertility’ (Ricardo 1951: 403). In any case, the diminishing returns to land arising from the increase in land cultivation to feed a growing population lead to an increase in the aggregate corn rent. Alongside the rise in corn rent, the price of corn rises too thereby making the landowners ‘[t]he only real gainers’ (Ricardo 1951: 125; cf. Eltis 1984: 194-5).

The rise in the money value of rent is accompanied by an increased share of the produce; not only is the landlord’s money rent greater, but his corn rent also; he will have more corn, and each defined measure of that corn will exchange for a greater quantity of all other goods which have not been raised in value.

(Ricardo 1951: 102; also see 112)

Next, we examine the theory of economic growth in Ricardo.

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60 According to Smith: ‘[w]hen the stocks of many rich merchants are turned into the same trade their mutual competition naturally tends to lower its profit; and when there is a like increase of stock in all the different trades carried on in the same society, the same competition must produce the same effect in all’ (WN: 105). This view of Smith is incorrect because he incorrectly extends the process of competition in a single industry to the entire economy (cf. Garegnani 1978: 339).
7.3 Theory of economic growth

The agricultural and manufacturing capitalists invest the bulk of their profits and it is this reinvestment which causes economic growth (Pasinetti 1960: 81; Eltis 1984: 202). If capital accumulation falls, production also falls (Ricardo 1951: 151). Since the production of corn is characterised by diminishing returns, as the population grows and net capital accumulation increases over time, the natural price of corn rises thereby raising the natural price of labour (Ricardo 1951: 93). According to Ricardo, during the process of economic growth, the natural price of agricultural commodities which use land as a direct input will increase and the natural price of manufacturing commodities which do not use land as a primary input may remain constant or even decrease. This happens due to ‘the improvements in machinery, by the better division and distribution of labour, and by the increasing skill, both in science and art, of the producers’ which will counterbalance the rise of natural wages arising from the increased difficulty of production (Ricardo 1951: 94; see also 97; cf. King 2013: 58). The most favourable conditions for growth therefore are: (1) availability of fertile land and (2) ‘agricultural improvements’ (Ricardo 1951: 77).

When there is additional employment of labour and capital on land, the natural price of agricultural commodities and labour rise leading to a fall in the rate of profit if fertile land is limited and agricultural improvements are insufficient to compensate the fall in the rate of profit. Simultaneously, aggregate real and money rents increase. In effect, when the economy is growing, as a proportion of the rising social product, aggregate rents rise, aggregate wages rise and aggregate profits rise until a certain point and then they decline (see, for instance, Ricardo 1951: 102, 112, 124). Economic growth comes to a standstill when the rate of profit approaches zero due a rise in the natural wage. In fact, even before the rate of profit becomes zero, capitalists lose the inducement to accumulate (cf. Pasinetti 1960: 81). During this state, the aggregate rents and aggregate wages largely exhaust the gross product.

Like Smith, Ricardo treats a decision to save as being one and the same as a decision to invest (cf. Garegnani 1978: 339-40; also see Garegnani 1998: 398). Thus, Ricardo writes:

[i]f ten thousand pounds were given to a man having 100,000l. per annum, he would not lock it up in a chest, but would either increase his expenses by 10,000l.; employ it himself
productively, or lend it to some other person for that purpose; in either case, demand would be increased, although it would be for different objects.

(Ricardo 1951: 291; cf. 289-90)

Incomes are used for consumption, investment or lent to someone for either immediate consumption or investment; that is, ‘all incomes are spent’ (Pasinetti 1960: 84). Quesnay explicitly assumes that leakages from the circular flow should not occur and therefore does not allow landowners to hoard their rents. Ricardo assumes that leakages are always matched by an injection of investment despite his discussion of manufacturers who engage in external financing from ‘bankers and monied men’ (Ricardo 1951: 89; 297-8). This is exactly like in Smith where saving is automatically invested and workers consume their entire wages. While Quesnay, Turgot and Steuart recognise the possibility of leakages from the circular flow, both Smith and Ricardo assume that any saving (a leakage) is automatically invested (an injection). To put it differently, ‘...the same time that capital is increased, the work to be effected by capital, is increased in the same proportion’ (Ricardo 1951: 290).

The possibility of gluts is already present in Turgot and Steuart, arising from a lack of sufficient aggregate demand (see sections 4.4 and 5.4). Smith too recognises the important role of aggregate demand sufficiency even though this does not come across clearly in his growth theory (section 6.4). What is there in Ricardo’s theory which ensures that the increase in production will be entirely demanded? It is in this context that he employs Say’s maxim which states that ‘demand is only limited by production’ (Ricardo 1951: 290) because it is only an increase in production which can provide the ‘means’ to consume (see Sowell 1987 for a short discussion on Say’s Law).

Too much of a particular commodity may be produced, of which there may be such a glut in the market, as not to repay the capital expended on it; but this cannot be the case with respect to all commodities; the demand for corn is limited by the mouths which are to eat it, for shoes and coats by the persons who are to wear them; but though a community, or a part of a community, may have as much corn, and as many hats and shoes, as it is able or may wish to consume, the same cannot be said of every commodity produced by nature or by art. Some would consume more wine, if they had the ability to procure it. Others having enough of wine, would wish to increase the quantity or improve the quality of their furniture. Others might wish to ornament their grounds, or to enlarge their houses. The wish to do all or some of these is implanted in every man’s breast; nothing is required but the means, and nothing can afford the means, but an increase of production.
Although he allows for sectoral imbalances, Ricardo posits that there cannot be a glut with respect to all commodities. But what are the forces which determine the size and composition of aggregate supply? It is the size and composition of aggregate demand (Ricardo 1951: 88, 89, 129 quoted above; see also pp. 10-1). As Ricardo writes while debating Malthus’s views on rent: ‘Of what increased quantity does Mr. Malthus speak? Who is to produce it? Who can have any motive to produce it, before any demand exists for an additional quantity?’ (Ricardo 1951: 407n; emphasis added). Does this imply that aggregate demand induces aggregate supply and at the same time the latter generates adequate aggregate demand? This issue will be tackled in section 7.4. In any case, Ricardo is very clear about the role of aggregate demand, but he thinks that as long as production continues and incomes are generated therein, there can be no deficiency of aggregate demand.

Temporarily, the quantity supplied might not equal the quantity demanded of particular commodities.

When we look to the markets of a large town, and observe how regularly they are supplied both with home and foreign commodities, in the quantity in which they are required, under all the circumstances of varying demand, arising from the caprice of taste, or a change in the amount of population, without often producing either the effects of a glut from a too abundant supply, or an enormously high price from the supply being unequal to the demand, we must confess that the principle which apportions capital to each trade in the precise amount that it is required, is more active than is generally supposed.

The dependence of the composition of aggregate consumption on the ‘caprice of taste’, especially of landowners, is clearly visible in Cantillon and Quesnay (sections 2.3 and 3.3 respectively); for Steuart, taste and aspirations induce a rise in the volume of aggregate consumption thereby resulting in higher activity levels, although he is unable to provide determinacy to income as their mediator (section 5.3). Similar to other classical economists, commodity supplies adapt to their demands in Ricardo: ‘capital is apportioned precisely, in the requisite abundance and no more, to the production of the different commodities which happen to be in demand’ (Ricardo 1951: 88). Ricardo writes more emphatically in his chapter on foreign trade: ‘I deny that less capital will necessarily be
devoted to the growth of corn, to the manufacture of cloth, hats, shoes, &c. unless the
demand for these commodities be diminished.’ (Ricardo 1951: 129). A temporary glut can
lower the price of corn ‘and much agricultural distress will be produced till the average
supply is brought to a level with the average demand’ (Ricardo 1951: 272). But
manufacturing is not greatly affected because it possesses some spare capacity in order to
quickly respond to demand variations: ‘[the manufacturer] has always some portion of ...
floating capital, increasing or diminishing according to the activity of the demand for his
commodities’ (Ricardo 1951: 89).

What determines the sectoral demands for the agricultural and manufacturing
commodities? According to Ricardo, the demand for agricultural products is ‘uniform’ and
that of manufactured products is subject to the ‘tastes and caprice’ of the buyers.

The demands for the produce of agriculture are uniform, they are not under the influence
of fashion, prejudice, or caprice. To sustain life, food is necessary, and the demand for food
must continue in all ages, and in all countries. It is different with manufactures; the demand
for any particular manufactured commodity, is subject not only to the wants, but to the
tastes and caprice of the purchasers.

(Ricardo 1951: 263; also see 292)

Consequently, ‘a general change of fashion’ can increase demand and capitalists in that
sector earn ‘unusual profits’ temporarily till commodity supplies match the demand
(Ricardo 1951: 119). Given that the demand for necessaries is in some fixed proportion to
the population, if capitalists who manufacture luxuries enter the cultivation of necessaries,
Ricardo states that ‘there might undoubtedly be an universal glut’ of necessaries.

If every man were to forego the use of luxuries, and be intent only on accumulation, a
quantity of necessaries might be produced, for which there could not be any immediate
consumption. Of commodities so limited in number, there might undoubtedly be an
universal glut, and consequently there might neither be demand for an additional quantity
of such commodities, nor profits on the employment of more capital. If men ceased to
consume, they would cease to produce.

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61 This has already been noted in the discussion on capital mobility and the disastrous
consequences it has on workers during this temporary process of adjustment (section 7.2).
62 Ricardo takes this idea from Adam Smith: ‘[t]he desire of food is limited in every man by the
narrow capacity of the human stomach; but the desire of the conveniencies and ornaments of
building, dress, equipage, and household furniture, seems to have no limit or certain boundary’
(WN: 181; also quoted at Ricardo 1951: 293 and 387).
This observation seems exceedingly similar to Malthus’s position on the needed balance between productive and unproductive consumption (section 9.3). Ricardo is here stating that too much investment in sectors which produce necessaries is harmful since their demand is limited by physical needs of the population whereas the consumption of luxuries like silks or velvets have no boundaries. (Of course, they are constrained by incomes.) But he does not probe this possibility any further because in England both necessaries and luxuries are produced (Ricardo 1951: 293). It is precisely such a proportion that is implied in the economics of Cantillon (section 2.3), and more so, Quesnay (section 3.3) and Steuart (section 5.3).

When net capital accumulation increases, the demand for labour rises: ‘in proportion to the increase of capital will be the increase in the demand for labour; in proportion to the work to be done will be the demand for those who are to do it’ (Ricardo 1951: 95; also 104, 125). For Smith and Ricardo as well as other classical economists before them, the demand for labour is determined by capital accumulation and the supply of labour ‘will always ultimately be in proportion to the means of supporting them’ (Ricardo 1951: 292). However, ‘[t]he demand for labour will continue to increase with an increase of capital, but not in proportion to its increase; the ratio will necessarily be a diminishing ratio’ (Ricardo 1951: 395). This can be either due to a rise in the wages of existing workers or due to the increasing presence of machinery, a non-wage capital, relative to labour (for a brief account of the latter, see Kurz 2010: 1196-7).

What happens to the population during the course of economic growth? Population growth is positive when market wages exceed natural wages and negative when market wages are below natural wages. When the market wage equals the natural wage, the population growth rate is zero (Ricardo 1951: 93). Market wages exceed natural wages when capital accumulation takes place at a high pace with the demand for labour outstripping its supply. Once population grows and the labour supply adapts to labour

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63 Kaldor (1955-6: 85-6) rightly notes that the demand for labour is determined by the extent of capital accumulation in Ricardo but he is incorrect in attaching a ‘wages fund’ theory to Ricardo because the natural wage can undergo permanent changes along the growth path.
demand, the market wage gravitates towards the natural wage (Ricardo 1951: 94). But it is not necessary for population to grow; instead an existing worker could

employ a portion of his increased wages in furnishing himself abundantly with food and necessaries,—but with the remainder he may, if it please him, purchase any commodities that may contribute to his enjoyments—chairs, tables, and hardware; or better clothes, sugar, and tobacco. His increased wages then will be attended with no other effect than an increased demand for some of those commodities; and as the race of labourers will not be materially increased, his wages will continue permanently high.

(Ricardo 1951: 406)

Ricardo does point out that it is possible for the high pace of accumulation to continue for a long time leading to the market wage being above the natural wage ‘for an indefinite period’ (Ricardo 1951: 94-5; cf. Garegnani 1984: 294 concerning such a possibility for customary subsistence to rise in Ricardo). Such a high rate of accumulation is facilitated by ‘an abundance of fertile land: at such periods accumulation is often so rapid, that labourers cannot be supplied with the same rapidity as capital’ (Ricardo 1951: 98). The condition of the labourers is at their worst when their real wages fall below the customary subsistence levels: ‘[w]hen the market price of labour is below its natural price, the condition of the labourers is most wretched: then poverty deprives them of those comforts which custom renders absolute necessaries’ (Ricardo 1951: 94). Ricardo admits the possibility of natural wages rising as well as falling during the process of economic growth. For either of these movements to be permanent the market wage has to be persistently above or below natural wages for a sufficiently long period. But Ricardo does not provide an account of how this might happen.

7.4 The apparent irrelevance of demand

In Chapter 20 entitled ‘Value and Riches, their Distinctive Properties’, Ricardo distinguishes between factors that affect price/value and those that affect quantity/riches/wealth. This entails an analytical separation between the theory of value and distribution on one side and the theory of activity levels and economic growth on the other. Hence Ricardo writes:

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64 For another account of temporary versus permanent wage rise, see Ricardo (1951: 125).
[b]y the invention of machinery, by improvements in skill, by a better division of labour, or by the discovery of new markets, where more advantageous exchanges may be made, a million of men may produce double, or treble the amount of riches, of “necessaries, conveniences, and amusements,” in one state of society, that they could produce in another, but they will not on that account add any thing to value; for every thing rises or falls in value, in proportion to the facility or difficulty of producing it, or, in other words, in proportion to the quantity of labour employed on its production.

(Ricardo 1951: 273)

Similar to ‘riches’, ‘wealth always depends on the quantity of commodities produced...’ (Ricardo 1951: 279; emphasis added). Of course, technological improvements can have an effect on ‘value’ as well which Ricardo does not ignore: ‘If ... by the extension of foreign trade, or by improvements in machinery, the food and necessary of the labourer can be brought to market at a reduced price, profits will rise’ (Ricardo 1951: 132). Here, he is acknowledging that foreign trade, although in a very different manner from Smith’s mechanism of endogenous technical change (section 6.3), can increase activity levels by improving access to cheaper wage-good imports, a kind of technical progress. Ricardo reiterates: ‘[m]any of the errors in political economy have arisen from errors on this subject, from considering an increase of riches, and an increase of value, as meaning the same thing...’ (Ricardo 1951: 274).

According to Ricardo, the ‘wealth’ of a country can be increased in two distinct ways: (1) increasing the employment of ‘productive labour’ and (2) increasing productivity of the existing ‘productive labour’ (Ricardo 1951: 278-9). This is exactly what Smith’s growth theory tells us too (section 6.3). Through the first method, both ‘riches’ and ‘value’ will increase whereas through the second, only ‘riches’ will increase without altering the ‘value’. Of these ‘two modes of increasing wealth’, Ricardo prefers the second because the first mode warrants a reduction in expenditure on unproductive labour which is a ‘privation and diminution of enjoyments’. Improvements which displace labour will reduce the ‘value’ of commodities (Ricardo 1951: 271; cf. 274). This analytical separation of the price and quantity domain is also visible in Ricardo’s treatment of the determinants of the profit rate and the role of wars to which we turn to below.

In Ricardo’s framework, the rate of profit can change only if the natural wage or methods of producing the wage-goods change (Ricardo 1951: 132). Alterations in
aggregate demand have no impact on the rate of profit except via any possible influence on those two factors.

An extraordinary stimulus may be also given for a certain time, to a particular branch of foreign and colonial trade; but the admission of this fact by no means invalidates the theory, that profits depend on high or low wages, wages on the price of necessaries, and the price of necessaries chiefly on the price of food....

(Ricardo 1951: 119)

As Garegnani also notes, ‘[n]o room was left for any permanent influence of demand on profits’ (Garegnani 1978: 340). Ricardo expresses the inability of aggregate demand to affect the rate of profit more forcefully in the following excerpts. It must be noted that these are written in response to Smith’s assertion that the competition of capitals will tend to lower the rate of profit.

It is not, therefore, in consequence of the extension of the market that the rate of profit is raised, although such extension may be equally efficacious in increasing the mass of commodities, and may thereby enable us to augment the funds destined for the maintenance of labour, and the materials on which labour may be employed.

(Ricardo 1951: 132)

Foreign trade, then, though highly beneficial to a country, as it increases the amount and variety of the objects on which revenue may be expended, and affords, by the abundance and cheapness of commodities, incentives to saving, and to the accumulation of capital, has no tendency to raise the profits of stock, unless the commodities imported be of that description on which the wages of labour are expended.

(Ricardo 1951: 133)

These passages also attest to the analytical separation of the price and quantity system in Ricardo.

For Ricardo, the motive for accumulation comes from the rate of profit whereas the motive for production depends on the volume and distribution of aggregate demand. It is indeed strange to divorce the motives of accumulation from that of production. Despite recognising the role of demand in inducing production, he states that the ‘motive for accumulation’ solely depends on the rate of profit and therefore

[t]here cannot, then, be accumulated in a country any amount of capital which cannot be employed productively, until wages rise so high in consequence of the rise of necessaries,
and so little consequently remains for the profits of stock, that the motive for accumulation ceases.

(Ricardo 1951: 290)

In the following excerpt Ricardo reiterates that it is the rate of profit which limits both capital and demand:

...there is no limit to demand—no limit to the employment of capital while it yields any profit, and that however abundant capital may become, there is no other adequate reason for a fall of profit but a rise of wages, and further it may be added, that the only adequate and permanent cause for the rise of wages is the increasing difficulty of providing food and necessaries for the increasing number of workmen.

(Ricardo 1951: 296)

Aggregate demand and capital accumulation cannot have any direct influence on the (natural) rate of profit when natural wages and prices prevail. But what if aggregate demand is less than the productive capacity associated with accumulation? They could, however, affect the rate of profit indirectly by altering the natural wage or the production methods of wage goods. This statement by Ricardo is to be seen in the context of Smith’s view that an abundance of capital has a tendency to lower the rate of profit via increased competition (cf. Mongiovi 1990: 72; Hagemann 1998: 322).

Wars, writes Ricardo, have a tendency, even if for a temporary period, to affect the size and composition of aggregate demand and therefore also to determine the employment of labour and of fixed capital.

The commencement of war after a long peace, or of peace after a long war, generally produces considerable distress in trade. It changes in a great degree the nature of the employments to which the respective capitals of countries were before devoted; and during the interval while they are settling in the situations which new circumstances have made the most beneficial, much fixed capital is unemployed, perhaps wholly lost, and labourers are without full employment.

(Ricardo 1951: 265)

...a country engaged in war, and which is under the necessity of maintaining large fleets and armies, employs a great many more men than will be employed when the war terminates, and the annual expenses which it brings with it, cease.

(Ricardo 1951: 393)
The upshot of the preceding discussion is that Ricardo, in response to Smith, argues that greater competition among capitalists cannot lower the (natural) rate of profit. This increase in competition can be due to increase in domestic or foreign trade – an expansion of aggregate demand. The rate of profit falls only when more labour time is required to produce the subsistence consumption goods of the workers. Moreover, as the passages relating to wars indicate, a permanent fall in aggregate demand has a negative impact on activity levels and employment of labour (cf. King 2013: 117 who offers a different conclusion – that Ricardo’s growth theory is supply-constrained). Therefore, Garegnani is correct in arguing that the ‘Ricardian theory of distribution ... is not incompatible with effects of ... [aggregate] demand on aggregate output or the speed of accumulation’ (Garegnani 1978: 340n, emphasis added).

7.5 Conclusion

Say’s maxim does not imply the full employment of labour but only that saving automatically translates into investment in Ricardo’s growth theory just as it is in Smith (cf. Garegnani 1998: 398). Gluts in commodities are a temporary phenomenon which does not become permanent due to the working of competition which moves labour and capital to those sectors with a higher rate of profit eventually leading to a uniform rate of profit on capital advanced across sectors. Supply adapts to demand but there are no mechanisms operating which tend to avoid a glut in labour, i.e., labour unemployment is a permanent feature especially in a growing economy which accumulates a higher proportion of fixed capital. Hence, as Kling is rightly observes: ‘Ricardo’s reference to Say’s Law does not imply full employment of labour. [H]is argument only refers to the full employment of capital’ (Klingen 1998: 281).

Ricardo distinguishes the motive to accumulate from the motive to produce which is illogical from the point of view of economics. The former is a function of the rate of profit determined by the real wage and production conditions whereas the latter depends on the volume of demand. This partially reflects the analytical separation between the price and quantity system within Ricardo’s economics. Also, this discussion is to be seen in conjunction with Smith’s view that the competition of capitals tend to lower profit. More importantly, if aggregate demand is less than the productive capacity generated by
accumulation, the rate of profit and natural prices are not at their natural levels and profits are not realised thereby highlighting Ricardo’s erroneous distinction between the motive to accumulate and the motive to produce. It is perhaps an overstatement to suggest that Ricardo ‘did not possess a demand theory’ as Pasinetti (1960: 85; also 90) does, given that Ricardo explicitly points out the crucial role played by consumption demand in the context of general commodity production as well as during wars. But yes, Ricardo does not undertake a detailed analysis of the role of aggregate demand in his growth theory. After all, his central focus is the theory of value and distribution and because of his explicit acceptance of Say’s Law.

Due to diminishing returns to land, over time, with a growing population and net accumulation, the real wage rises and the rate of profit falls, assuming technological change is not large enough to compensate for the diminishing returns. In any case, the gap between output per worker, the real wage and unproductive consumption is filled up in a similar way as in Smith – through the very special assumption that planned saving is one and the same as planned investment (implicit in Ricardo). Along Ricardo’s growth path, the wage share is rising and to that extent the gap becomes smaller although it is always filled up by investment demand and unproductive consumption.
CHAPTER 8

Sismondi

Jean-Charles-Léonard Sismonde de Sismondi made significant contributions to classical economics through his *New Principles of Political Economy* (*New Principles* hereafter). Although Sismondi operates within the framework of classical economics (cf. Arena 1998: 360), he emphasises the factors which obstruct the tendency towards equalization of profits and the tendency for labour supply to adapt to labour demand. Moreover, Sismondi highlights the possibility of aggregate demand falling short of aggregate output due to the depressed wages of the workers. At the outset, it may also be noted that the focus of Sismondi is the induced consumption of the workers as the central component of aggregate demand and there is really no pointers towards autonomous consumption (like landlords’ consumption as highlighted by Malthus in the next chapter). Section 8.1 presents his definition of the gross and net product, productive and unproductive labour and what he means by ‘wealthy’ and ‘poor’. In section 8.2, his theory of value and distribution is explained and attention is given to the obstructive forces which lengthen the period it takes for profit rates to equalize across sectors. Section 8.3 details his theory of economic growth. The link between consumption and economic growth is explored in section 8.4. Section 8.5 concludes the chapter by noting the persistent tendency for consumption demand to be deficient in the ‘social order’ Sismondi theorizes.

8.1 Introduction

Sismondi defines the gross and net product as follows:

> [w]e have called the total of the annual crop the gross product because it must be divided between all those who have contributed to its creation, and net product that part of the crop which comes to the owner after payment of the costs that were incurred in its creation.

(*New Principles*: 229)

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65 The text consulted is the first English translation of Sismondi’s *Nouveaux Principes d’Economie Politique* (1819) carried out by Richard Hyse and published in 1991. Hyse is inconsistent in his spelling of ‘labor’; to maintain consistency, we use ‘labour’ throughout.
The net product is arrived at by deducting the necessary costs from the gross product. Both Smith and Ricardo possess a similar conception of the gross and net product, although Smith, at times, includes subsistence wages in the net product (see section 6.1).

Notions of reproduction (of the surplus) are contained in the works of other classical economists; this is treated as the starting point for understanding growth dynamics. The distinction between reproduction and growth of the economic system is captured in the following excerpt.

Revenue, indeed, is that quantity by which the national wealth is increased every year, and, which accordingly may be destroyed, without the nation becoming poorer; but the nation which, without re-production, destroys a quantity of wealth, superior to this annual increase, destroys the very means by which it would have acquired an equal re-production in subsequent years.

(New Principles: 96, also 101)

The distinction between fixed and circulating capital is exactly the same as that in Smith (New Principles: 83-4). As in Smith, human capital is taken to be part of the fixed capital by Sismondi: ‘[i]n general, the skill acquired by workers, to whatever class they belong, is a kind of fixed capital’ (New Principles: 124).

Sismondi’s definition of productive \((L_P)\) and unproductive labour \((L_U)\) is different from that found in Smith owing to Sismondi identifying \(L_U\) with services. The distinction is between durable capital goods and perishable services (New Principles: 63, 95, 123-4). All services, incorrectly, are brought under unproductive labour. ‘[L]abour, whose fruits are naturally incapable of being stored up for future consumption, is unproductive...’ (New Principles: 63, also at 121, 124).

...the distinction between the two classes is real: one always exchanges its labour against the capital of a nation, the other always exchanges it against a share of the national income. This distinction is necessary in order to understand what the capital of a nation is, and how in turn it becomes the income of one, and it replaces the income of the others, or is replaced by it.

(New Principles: 124)

Durable luxuries, in this scheme, occupy an uneasy existence.
This section ends with Sismondi’s distinction between the ‘rich’ and the ‘poor’ in Hyse’s translation. It is more or less equivalent to capitalists and workers.

...the national income is composed of, first, for the wealthy, the profits derived from all fixed and circulating capital, and second, for the poor, the price of their labour exchanged against circulating capital.

(New Principles: 273)

The savings of the past year will be divided the next year: one part, as income, will increase the pleasures of the rich, one part, as wages, will increase the pleasures of the poor.

(New Principles: 104)

In the social order Sismondi analyses, the workers are paid a remuneration which is smaller than their contribution to the production process (New Principles: 81, 83, 115; all quoted below). As capitalists own the means of production and workers have only their labour to sell in this social order, undoubtedly the capitalists are ‘wealthy’ and the workers are ‘poor’. This distinction will prove to be crucial when we discuss Sismondi’s theory of economic growth in section 8.3.

8.2 Theory of value and distribution

The gross product resolves into the income of the three classes – landowners, capitalists and workers. Sismondi writes:

it is however usual to recognize three types of income under the name of rent, profit, and wages, as coming from the three different sources, the earth, accumulated capital, and labour.

(New Principles: 80)

In this section, we outline, in particular, the determinants of wages and the rate of profit. Before elucidating the determinants of the distributive variables, we present Sismondi’s theory of value.

Sismondi distinguishes market prices from long-run normal prices (similar to ‘intrinsic value’ in Cantillon and ‘natural price’ in Smith). As in other classical economists, there are two kinds of prices in Sismondi: ‘relative’ and ‘intrinsic’ (cf. Skourtos 1991: 225). The latter ‘comes into being by production’ and the former ‘by competition’ (New Principles: 229). In other words, the '[i]ntrinsic value is absolutely independent of
exchange’ (New Principles: 229). The ‘intrinsic value’ is also referred to as the ‘seller’s price’ and the ‘relative price’ as the ‘buyer’s price’ by Sismondi.

The buyer’s price … is fixed by competition. … all the buyers, on the one hand, all the sellers on the other, act as if in concert: the sums asked, and the sums offered, are brought to equilibrium, and the mean price is established. … The seller’s price should enable him to reproduce the article sold, with a profit, under the same condition, in the same quality.

(New Principles: 258)

Market demand, or the relation between the income of consumers and the quantity of the gross product offered for sale … sets its relative price.

(New Principles: 231; also 230)

Further, the ‘relative price’ depends on the strategies of rival entrepreneurs and the extent to which the sellers are able to correctly ascertain the market demand (New Principles: 255; also 86; cf. Arena 1998: 361-2; see section 2.2 for a very similar observation in Cantillon).

The prices which the seller receives must be sufficient to compensate him for his advances and also must cover profits. As Sismondi notes:

…but as the farmer at harvest must recover not only the compensation for his seed, but likewise for all his labours, so the manufacturer must find in his production, not the raw materials only, but all the wages of his workmen, all the interest and profits of his fixed capital, with all the interest and profit of his circulating capital.

(New Principles: 86)

Buyers benefit from low prices and sellers from high prices. However, the market price cannot fall below the ‘seller’s price’ which has to be ‘remunerative’ (in French, prix remunerateur) for the seller. The ‘seller’s price’ can be seen as indices of reproduction, that is, prices which enable the production process to be repeated in the next time period. Perhaps this is why Arena (1998: 363) writes that ‘in his Nouveaux Principes, Sismondi discards the Smithian interpretation of natural prices and adopts a concept closer to the Ricardian one: the theory of “components” is replaced by a refiguration of the modern theory of production prices.’

Everyone is a consumer of corn, everyone benefits from plenty and low prices; all that one could wish is that a low price be lasting, that it be remunerative, as the English say, meaning
that it pay back all the advances of production in such a way that its continuation is encouraged.

(New Principles: 198; see also 85-6, 116)

When the ‘buyer’s price’ is greater than the ‘seller’s price’, ‘the latter will increase his production, in order to gain from the offered advantage’ (New Principles: 261). This is a phenomenon observed by other classical economists as well, notably Smith and Ricardo (see section 6.2 and 7.2). It is such movements of labour and capital which cause market prices to gravitate towards their normal values.

The profit of the capitalist ‘is proportionate to his industry and the capital advanced by him’ (New Principles: 131-2). This profit is made up of two distinct elements already noted by Turgot and Smith – ‘the pure rent of capital’ and the ‘business profit’.

Profits represent the advantage flowing from past labour by whose assistance production has been facilitated. In such profit, two parts are always distinguished – the interest of the capitalist which represents the pure rent of capital, stripped of all labour and all compensation for the talent of the person who uses it, and business profit, which is that very compensation, and which, while adjusting itself to the sum of capital used, yet shares its character with wages inasmuch as it grows with ability and decreases with mismanagement.

(New Principles: 293)

Sismondi also adopts Smith’s view that competition among ‘capitals’ reduces the rate of profit.

When ... capitals are larger than the needs of consumption, the first unpleasant result of such superabundance is that everyone fights over their use, and their owners come to be satisfied with a lower return....

(New Principles: 247; also see 293-5)

This view of Smith, as we already saw in the previous chapter, has been criticised, and rightly so, by Ricardo (see section 7.2 as well as 7.3). But perhaps Sismondi is referring to a temporary situation (unlike Smith) during which the entrepreneurs would be accommodative of a lower return.

Wages, as in the other classical economists, are at customary subsistence levels. More importantly, Sismondi argues that the wages of the workers are less than the value
they add to the product. [This conception assumes great importance in Marx (chapter 10).]

This is clearly borne out from the following excerpts.

Though the labourer, by his daily work, had produced much more than his daily cost of living, it is rare that, after having shared with the landlord and the capitalist, he retains much over and above his daily needs. However, what remains with him is his income, and is called wages....

(New Principles: 81)

The advantage of an employer of labour is often nothing else than the plunder of the worker he hired; he does not profit because his enterprise produced much more than it costs, but because he does not pay all the costs, because he does not grant to the worker sufficient compensation for his work.

(New Principles: 83; also 92)66

In short, the ‘workman’s labour was worth more than his wages’ (New Principles: 115). The worker spends all his wages; he does not hoard any of his wages in the form of money (New Principles: 283).

According to Sismondi, there is a floor below which real wages cannot fall unlike the profits of capital. But from Ricardo we know that if the profits of capital fall below a certain minimum level, all accumulation will cease (section 7.3). Sismondi writes:

...there exists a necessary wage below which even competition cannot for long reduce the worker; whereas a reduction of interest on money, or the profits of capital, which are the other components of price, seemingly has no limit.

(New Principles: 283)

The following excerpt lends support to the view that Sismondi treats wages to be at customary levels and not at a strict subsistence level.

These serious enjoyments of the spirit, as well as those of a more fleeting nature, such as reading poetry, music, theatre, are exchanged against the income of the poor classes as well as the rich; the former give up a part of their subsistence, the latter a part of their material abundance, to indulge in the luxury of the spirit....

(New Principles: 123)

66 See Thompson 1984 for an account of how the working-class were exploited between 1816 and 1834.
Owing to Sismondi treating the real wage and the profit rate as independent of each other, as does Smith, both distributive variables could rise or fall together as well as go in opposite directions. Hence he criticises Ricardo (and Say) for finding ‘it impossible to explain how the profits of capital and the wage rates often fall at the same time when production increases’ (*New Principles*: 278). Since, in real terms, wages and profits make up the entire value-added, for the wage rate and profit rate to fall when output increases, there has to be an appropriate increase in the labour and capital employed.

Sismondi does recognise that the free mobility of labour and capital across sectors will lead to an equalization of the rate of profit across sectors (cf. Meek 1963: 329). This is central to the economics of both Smith and Ricardo. Sismondi observes:

> [i]f the profits rise above the mean rate, the producer will extend his enterprises; he will employ new hands and fresh capital, and striving to benefit by his extraordinary profit, he will soon reduce it to the common level.

(*New Principles*: 255)

But in reality, there are several factors which obstruct the tendency for profit rates to equalize across sectors. Sismondi highlights these factors and criticises Ricardo for restricting his analysis to the framework of free competition. In the following passage, Sismondi identifies factors which make both capital and labour less mobile therefore giving rise to quasi-rents on obsolete technology and human capital. These factors lengthen the process of profit rate equalization.

...we do not in any manner accept the basic principle of Mr. Ricardo’s argument, that is, the stable equilibrium of profits in all industries. We believe to the contrary that, given the inability of all owners of fixed capitals to liquefy them and to change their use, they continue to work with them long after these capitals will yield no more than an income below that of all others. Their persistence in remaining in the same trades is again much increased by their unwillingness to lose all the skills they have acquired, and their inability to master a new trade. The more numerous a class is, the larger is this obstacle; therefore, while some workers, giving in to discouragement, change trades, new ones come from the new generation and replace them, and equilibrium is never reestablished. Farmers can never of their own free will become weavers; farmers from one district find it difficult to migrate to another; and if there is ever anything proven by experience, it is that their profits are not in any way equal in all provinces, or on all kinds of lands.

(*New Principles*: 228; cf. 256-7, 467)
Sismondi, however, entirely subscribes to Smith’s and Ricardo’s view that free competition leads to an equalization of profit rates. This is visible in the first sentence of the following passage.

In every country there is a going rate of profit in trade in the same way as there exists a going rate of interest; this profit becomes the same in all businesses which can be entered and left with ease, and it serves as a basis for general investment. But every old business, and above all, every industry which demands long training and much fixed capital, utterly avoids such completion. Its profits can be much higher or much lower, for a very long time, compared to those of an industry carried on in the same country by people who have no way of going from one to the other.

(New Principles: 257; emphasis added)

What Sismondi disagrees with is the assumption of free mobility of labour and capital across all sectors (New Principles: 227-8; cf. Arena 1998: 363). His objection is based on obstacles and barriers which prevent labour and fixed capital from moving easily across all sectors. Workers being unwilling to lose current skills and their difficulty in learning new skills make mobility of labour very slow (New Principles: 228; also 256-7). Also, it is not easy to convert fixed capital in one sector into fixed capital in another; hence they might remain in the same sector and yield quasi-rents (see New Principles: 228). Arena incorrectly interprets the imperfections in the gravitation process as a cause of economic crises (Arena 1998: 363); economic crises occur in the social order Sismondi theorizes due to the inability of workers to buy back the products they have produced – leading to a deficiency of aggregate demand (see below) (Bleaney 1976: 67).

Sismondi lays more emphasis on ‘market’ variables in his theory of value and distribution, be it the determination of ‘relative prices’ or the rate of profit as determined by the competition of ‘capitals’. As Arena (1998: 361) writes, ‘it is precisely the description of the market phase that provides one of the major original contributions of Sismondi to the classical tradition.’

8.3 Theory of economic growth

According to Sismondi, the following factors determine the economic growth of a nation: (1) net capital accumulation, (2) technical progress and (3) consumption demand. He lays particular emphasis on consumption demand as an important determinant of activity
levels and economic growth. He agrees with Smith that ‘parsimony is the sole means of accumulating’ wealth (New Principles: 53). Sismondi notes that ‘[n]ew income is created for the nation from all fixed or circulating capital newly formed by parsimony, and appropriately employed to create a new and desired production’ (New Principles: 273). The significance of net capital accumulation and aggregate consumption in the determination of activity levels is explicit in the following passage.

If society encroached once on their capitals, they destroyed at one and the same time their means of reproduction, and means of future consumption. All that they produced, however, was destined for consumption; and if their annual products, when carried to the destined market, found no purchaser, reproduction was arrested, and the nation ruined in the midst of abundance.

(New Principles: 79)

This is strikingly similar to a passage found in Smith’s Wealth of Nations where he argues the following: if the aggregate output is lower than aggregate consumption, ‘the capital of the society must annually decay in proportion to this deficiency’ (WN: 497).

Division of labour makes workers more dextrous and raises labour productivity (New Principles: 69; cf. section 6.3 for a similar account in Smith). It also makes the workers more like machines (New Principles: 297; see Aspromourgos 2009: 139 for a similar view present in Smith). The division of labour also facilitates scientific progress and therefore indirectly leads to the creation of technology useful in agriculture and manufacturing.

The division of labour increased in another way the productive faculty man possesses. Many members of society, abandoning manual tasks, devoted themselves to those of knowledge. They studied nature and its properties, dynamics and its laws, mechanics and its application, and they deduced from their inquiries almost infinite means to increase man’s productive powers. These are means of production which in our day are called scientific forces, which can accomplish through more powerful agents than we are, works humanity never could have undertaken with its own unaided strength.

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67 The complete passage in Smith is as follows.

If the exchangeable value of the annual produce ... fall[s] short of the annual consumption, the capital of the society must annually decay in proportion to this deficiency. The expence of the society in this case exceeds its revenue, and necessarily encroaches upon its capital. Its capital, therefore, must necessarily decay, and, together with it, the exchangeable value of the annual produce of its industry.

(WN: 497)

But Smith does not take this idea of proportion (between ‘annual consumption’ and ‘capital of the society’) any further.
The increase in labour productivity, Sismondi notes, does not translate into higher wages for the workers.

It is not the fault of the progress of mechanical science, but of the social order that the worker who acquires the power to make in two hours what he made in twelve before, is not any richer, does not, as a consequence, have more leisure, but produces six times more product which is not demanded from him.

Because of the advances in industry and the sciences which have subordinated to mankind all forces of nature, every worker can produce every day more and ever more than he has need to consume.

In the first excerpt, Sismondi locates the absence of mechanisms which ensure the accrual of productivity gains to the workers to be a fault of the extant social order. The second of the above two excerpts imputes a certain rigidity to the real wages of workers, as if there is a maximum level of consumption for the worker. A similar view is found a few pages earlier when Sismondi writes: ‘after all, the needs of the working man are necessarily very limited’ (New Principles: 74). Contrast this with Smith’s prediction of rising real wages in liberal capitalism, the same social order which Sismondi analyses. Also, Sismondi, unlike Smith (section 6.2) and Ricardo (section 7.2), does not recognise that workers’ consumption could rise and undergo qualitative changes as the economy grows.

Sismondi, like Ricardo, notes that improvements in machinery can displace labour. This is also connected with the discussion and debate on the importance of gross product over net product, in the works of Smith and Ricardo (see Aspromourgos 2014). In the chapter ‘On Machinery,’ Ricardo argues that more emphasis on the growth of the net product at the expense of the gross product can be detrimental to the ‘labouring class’

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68 Book VII, Chapter 7 is titled ‘Of a population made expendable by the invention of machines’ (New Principles: 555). According to Sismondi, ‘improved manufactures ... have never diminished the price of their produce, except in arithmetical progression, while they have suspended workmanship in geometrical progression’ (New Principles: 560).
since a smaller gross product implies a smaller labour demand (Ricardo 1951: 390).

Sismondi writes:

...in a country where population is already too abundant, the dismissal of more than half the field-labourers is a serious misfortune, particularly at a time when a similar improvement in machinery causes the dismissal of more than half of the manufacturing population of the towns. The nation is nothing else but the union of all the individuals who compose it, and the progress of its wealth is illusory, when obtained at the price of general wretchedness and mortality.

(New Principles: 185)

Besides the adverse direct effect of machinery on employment of labour, if technical progress is not induced by a growth in consumption demand, it will lower overall activity levels. In Smith, productivity gains are limited by the ‘extent of the market’ but it is in Sismondi that we come across a clearer articulation of the relation between technological progress and consumption demand.

Each improvement introduced into industry, if it has not been the result of a new demand, and if it has not been followed by a greater consumption, has almost always produced the same effects—it has killed, far away, old producers no one saw, and which have disappeared unsung; it has enriched, besides the inventor, new producers who, because they did not know their victim, have regarded each new invention as a benefit to mankind.

(New Principles: 265; also 299, 557-8, 563)

Every invention in the arts which has multiplied the power of labour in man, from the plow to the steam engine, is useful, but it is not usefully employed except in relation to consumption.

(New Principles: 266)

According to Sismondi, if technical progress is not supported by a rising consumption there will be a mere redistribution of consumption and not a net increase in aggregate consumption. To summarise, the growth in employment of labour depends on consumption growth net of productivity growth.

8.4 Consumption and economic growth

The role of consumption demand is salient in Sismondi’s discussion of the benefits arising from technical progress. Its role is given predominance in his discussions on economic growth, especially because Ricardo (and Say), according to Sismondi, came ‘to the
conclusion that consumption was an unlimited power, or at least having no other limits than those of production...’ (New Principles: 12). In other words,

...it is a great mistake, into which the greater number of modern economists have fallen, to represent consumption as a force without limits, always ready to absorb an infinite production.

(New Principles: 74)

Therefore, it is not necessary that whatever is produced will always find adequate consumption at their remunerative price (see New Principles: 79). Moreover, ‘production, having as its object consumption, cannot be considered as achieved unless it has placed the produced article at the doorstep of the consumer’ (New Principles: 116).

For an economy to grow, consumption is crucial: ‘[a]ggregate consumption determines an equal or greater reproduction. It is here that the circle can enlarge itself and change into a spiral’ (New Principles: 104; cf. Whatmore 2004: 598). What is it that determines consumption? Consumption, in Sismondi’s framework, is limited by income.

The link between ‘total product’, ‘national expenditure’ and ‘national income’ is as follows.

The national income ought to regulate national expenditure which, in turn, ought to absorb ... total production; the entire consumption causes an equal or larger reproduction, and from reproduction springs income.

(New Principles: 101)

The entire annual income is destined to be exchanged for the total annual product; through this exchange, everyone provides for his consumption, everyone replaces a productive capital, and everyone makes room and causes a demand, for a new production. If the annual income did not buy the total annual product, a part of that product would remain unsold, it would glut the warehouses of the producers, immobilize their capital, and production would stop.

(New Principles: 93; emphasis added)

And, there are no mechanisms in the economy which ensure that whatever is produced will be entirely consumed at their remunerative price. In particular, in a social order where the workers are paid less than the value they add to the output, it is not clear

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69 Sismondi notes that Ricardo gave too little attention to consumption (New Principles: 105-6), which is not entirely correct (see sections 7.3 and 7.4). Undoubtedly, Ricardo’s focus is the theory of value and distribution.
how the gap between the value of aggregate output and consumption by workers will exactly be filled up. Technological progress and workers being paid less than the value they add to the product, over time, will lead to a glut in food produce.

Long before the population can be arrested by the inability of the country to produce more food, it is arrested by the inability of the population to purchase that food, or to labour in producing it.

*(New Principles: 526; also 527)*

In the social order which Sismondi analyses, it is indeed unclear how aggregate supply and aggregate demand can be equal at ‘remunerative prices’ which implies a denial of the balance between planned saving and planned investment. The gap between aggregate supply and demand becomes larger with the increased presence of fixed capital and rapid technological progress. Since planned saving is not one and the same as planned investment, positive net saving is not a sufficient condition for economic growth (as in Smith and Ricardo).

Thus, parsimony, which accumulates capital and which alone creates new wealth, is not always a blessing; it can sometimes be out of step if there is no profitable use for its savings.

*(New Principles: 248; also see 299)*

‘[S]ince in the commonwealth the capital of one becomes the income of the other’ *(New Principles: 11)*, if consumption is inadequate, it affects the profits of capitalists and their subsequent ability to accumulate. This important insight of Sismondi is not adequately grasped either by Smith or Ricardo (see sections 6.5 and 7.5).

Sismondi is explicit about his abstraction from foreign trade in his theory of economic growth *(New Principles: 102)*. On the possibility of foreign trade filling up the gap, Sismondi states the following.

All nations whose production exceeds their consumption, turn their attention equally to foreign markets, and since its limits are unknown, its extent appears unlimited. ... an increase in global sales can only come from world prosperity. It is only when men acquire new incomes that they can satisfy new needs and buy what we want to sell them.

*(New Principles: 276)*
In sum, for aggregate global sales to rise, there has to be an increase in incomes of both capitalists and workers, and it is the latter which is not forthcoming in the social order of capitalism.

The consumption of necessaries, Sismondi argues, has an upper limit whereas that of luxuries does not have an upper limit thereby echoing Smith’s and Ricardo’s view on the same (section 7.3).

The consumption of necessities is limited, that of luxuries is without limits.

*(New Principles: 75)*

If consumption of necessaries has a point of saturation and that of luxuries does not, then economic growth after a certain point will imply a growth in production of luxury goods and unproductive labour: ‘*the indefinite multiplication of the productive powers of labour can then have only the result of increasing luxuries, or the enjoyments of the idle rich*’ *(New Principles: 75)*.

Sismondi observes that the actual aggregate consumption depends on other factors besides income.

The number of consumers, their tastes, the extent of their consumption, and their income, regulate the market for which every producer labours. Each of these four elements is variable, independently of the rest, and each of their variations accelerates or retards the sale.

*(New Principles: 254)*

For the ‘extent of consumption’ and ‘income’ to be treated as separate factors, saving has to be positive. If saving is zero, then all income is used for consumption purposes. The number of consumers depends on war, sickness, famines and mortality induced by poverty *(New Principles: 254)*. The taste of the consumers is influenced by the following social and cultural factors. Such changes in the tastes have been addressed by Ricardo in the context of his growth theory (see section 7.3).

The tastes of consumers may be changed by fashion, by a longer or shorter interruption of old habits which have led to new ones; by the introduction into the country of new products, more elegant, more convenient, and less expensive than the old ones; by a change in religious beliefs in the majority of the population, which could, for instance, lead
to a demand for fermented drink among Moslems, or terminate a demand for dried fish in
catholic countries.

(New Principles: 254)

Sismondi, as Steuart before him (section 5.4), includes social factors in explaining the
formation of tastes. ‘Everyone’s needs are determined by custom, and the obligations
society imposes on his station’ (New Principles: 520). Cantillon also possesses a rank based
determination of customary subsistence (see section 2.2).

In the foreword to the second edition of the New Principles, Sismondi states that
‘[i]t is on proportionality that my New Principles is founded’ (New Principles: 11). Sismondi
discusses two kinds of disproportionalities: (1) when aggregate demand is less than
aggregate output, and (2) when labour demand is less than labour supply.

We have seen what flows from a production larger than consumption; we are going to see
what happened to an economy that created more capital than the needs of industry could
absorb; an even greater suffering results from an increase in population greater than the
demand for labour.

(New Principles: 306)

In this context, he implicitly employs the distinction between productive ($L_P$) and
unproductive labour ($L_U$). If the $L_P/L_U$ in time $t$ is less than that in time $t-1$, then the
economic growth in time $t$ will fall.

...if there is a great disproportion between the new and the previous production, capitals
are reduced, there will be suffering, and the nation regresses instead of advancing.

(New Principles: 104-5)

This can occur if the expenditure on productive labour reduces or if the expenditure on
unproductive labour increases. This mechanism is exactly the same as in Smith and Ricardo
(New Principles: 93-5; see sections 6.3 and 7.3). But Sismondi, as opposed to Smith and
Ricardo, argues that a smaller expenditure on $L_U$ in time $t$ relative to $t-1$ is unfavourable for
economic growth. Ricardo’s growth theory warrants a decrease in unproductive labour
although Ricardo personally is not in favour as it reduces ‘enjoyments’ of the people (see
section 7.4).
If ... having suffered losses, they [merchant or capitalist] do not eat an income equal to that of the last year, then as consumers they slow down circulation and demand for labour, and those who offer labour will suffer the same year.

(New Principles: 518)

On the other hand, if the wealthy class resorts to ‘prodigality’, in the next time period, their incomes will reduce and reproduction of wealth will not take place (see New Principles: 105, 247). Reducing $L_P$ over time directly reduces capital accumulation and the demand for labour. And, reducing $L_U$ over time directly reduces the demand for unproductive labour. In other words, a reduction of $L_P$ reduces productive capacity whereas a reduction in $L_U$ reduces consumption demand.

Sismondi rightly points out that there is no reason why aggregate output, aggregate demand and labour supply should all be in proportion to each other such that aggregate demand and aggregate output are equal and labour demand equals labour supply.

...it is necessary for general happiness that income should increase with capital, that the population should not outrun the income on which it must subsist, that consumption should increase with population, and that reproduction should be proportioned to the capital which produces it as well as to the population which consumes it. At the same time I have shown that each of these relations may be disturbed independently of the other; that income often does not increase proportionately to capital, that population may increase without income being increased, so that a population more numerous, but more miserable, may have a diminished consumption; that reproduction, in short, may be proportional to the capital that spurs it on, and not to the population that demands it; but every time one or the other of these relations is disturbed, there will be suffering for society.

(New Principles: 11; emphasis added; also see 101, 280)

But note that the causation runs from aggregate demand to aggregate supply: ‘[a]ggregate consumption determines an equal or greater reproduction’ (New Principles: 104). Sismondi, at least, explicitly, does not treat investment as a component of demand; it is likely that he treats investment demand as an induced demand. Almost always, the disproportion adversely affects the ‘demand for labour’ and therefore the condition of the workers the most (New Principles: 518; also 246, 255; cf. Dome 1989: 133). Technological progress is one route through which a disproportion might come about and cause misery for the working class (New Principles: 75-6).
Labour supply is determined, in the very long run, by the labour demand. This is the case in Smith too – labour supply adapts to labour demand. For Sismondi,

[the population is always measured, in the long run, by the demand for labour. Whenever labour is required, and sufficient wage offered, the workmen will arise to earn it. ... Thus national happiness rests on the demand for labour, but on a regular and perpetual demand.]

*(New Principles: 535; also 513)*

But Sismondi thinks that the supply of labour can be affected (temporarily) by the existing social and cultural institutions (see below). That is, shocks to the parameters postpone the achievement of equilibrium. Such changes can engender a labour supply which is not in proportion to the demand for labour and thereby leads to the unemployment of labour.

The national income can be stationary, decrease, or increase; not only must one be prepared that the population follows naturally these same changes, and will do so if the social organization is not faulty; but it is essential to the happiness of such a population that it does follow them....

*(New Principles: 513)*

Sismondi argues that the extant ‘social organization is bad’ *(New Principles: 535)*. For ‘[r]eligious instruction, legislation, social organization, every thing has tended to produce a population the needs of society did not call for...’ *(New Principles: 537)*. That is, the general situation is one where the supply of labour is always more than the demand for labour *(New Principles: 83)*. There are no labour constraints in Sismondi, only land is a constraint and of course, ‘capital’ being a produced means of production is not a constraint either *(New Principles: 228)*.

One additional feature of the social order (arising from the division of labour) Sismondi examines is the inability of workers to ascertain the demand for their products at present and in the future – for their children *(New Principles: 519; also 549)*. Sismondi observes that:

...the more property is taken from the poor, the more he will be in danger of miscalculating his income, and contributing to a population increase which will not in any way match the demand for labour, and will not find any subsistence.

*(New Principles: 520)*
Sismondi argues that the supply of labour will tend to adjust to the demand for labour in the very long run. Similarly, in the long run, there will be a tendency towards uniform rates of return on capital advanced. There are several obstacles owing to which both these adjustments will take place extremely slowly. In the case of the growth of labour supply, there are social and cultural factors as well which generate excess labour supply. These obstacles cause disproportions in the relationship between aggregate output, aggregate income, labour demand and labour supply (see *New Principles*: 535).

**8.5 Conclusion**

Sismondi’s economics emphasises the factors which pose hurdles in the path towards a long run equilibrium position. Long run equilibrium entails prices being at remunerative prices, a uniform rate of profits and the supply of labour proportioned to its demand. Obstacles such as growing fixed capital as a consequence of technological progress and difficulties in reskilling of workers make the equilibrium position difficult to achieve (cf. Meek 1963: 329). Moreover, the social and cultural institutions exert an additional influence on the supply of labour. Most importantly, in the social order Sismondi examines, since the workers are paid less than the value they add to output, there is a very high possibility of consumption falling short of production. Such a possibility, in the later literature, is termed an underconsumption crisis. Underconsumption, as defined by Bleaney, is a ‘state of depression’ which ‘is the result of a persistent tendency towards insufficiency of demand for consumption goods’ (Bleaney 1976: 11). Bleaney characterises Sismondi as an underconsumptionist who identified the ‘inequality of distribution’ as the source of crises (Bleaney 1976: 71; also 73-4). That is, ‘[t]he workers are too poor to buy their own product’ (Bleaney 1976: 67). The underlying reason for the poverty of workers is to be found in the distributive rules intrinsic to the extant social order.

To ensure incomes are more equally distributed between capitalists (the ‘rich’) and workers (the ‘poor’), Sismondi advocates a focus on the gross product and not on the net product: ‘[t]he increase of the net income at the expense of the gross product, can be in reality, and often is, a great national calamity’ (*New Principles*: 132). As in Cantillon and others, the rate of interest is determined by the demand and supply of money.
The necessities of money-lenders and of money-borrowers, come thus to a state of equilibrium in all markets; those classes of men agree upon a medium rate.

(New Principles: 370)

And, Sismondi appears to be aware of hoarding as resulting in a reduction of aggregate consumption (or demand) in the context of his discussion on money.

...the peasant farmer who has saved a little capital, most often lays it by as a reserve in the form of money; and at the same time that the circular flow is completed with many less coins, it is on the other hand much slower.

(New Principles: 355)

A leakage from the circular flow via hoarding necessarily lowers activity levels.

Sismondi recognises the mediating role of income between population and consumption. It is aggregate demand which determines aggregate output. He also points out the high possibility of an imbalance between aggregate supply and aggregate demand and argues that a consumption gap can arise due to the unequally distributed incomes, especially owing to the very low incomes of the labouring (‘poor’) class, a characteristic of the extant social order. Sismondi highlights the importance of maintaining a balance between productive and unproductive labour, but his chief focus is the inability of workers to contribute sufficiently to aggregate demand through their consumption and the consequent fall in activity levels and economic growth. In other words, Sismondi highlights the importance of workers’ consumption, one that is induced by income, and in the next chapter on Malthus, the role of landlords’ consumption, one that is autonomous of income, takes the central position.
CHAPTER 9

Malthus

Thomas Robert Malthus’s Principles of Political Economy\textsuperscript{70} (Principles hereafter) is built on the conceptual framework developed by Smith (cf. Bleaney 1976: 43). While he adopts several of Smith’s propositions, he dismisses the method of Smith and Ricardo, which has its origins in the work of Petty, in arriving at natural prices by having recourse only to permanent forces. That is, he adopts a supply and demand approach for determining equilibrium prices. Malthus forcefully disagrees with Ricardo for paying inadequate attention to the disastrous consequences insufficient aggregate demand could have on economic growth as well as employment of labour. In this context, Malthus criticises Ricardo for arguing that the rate of profit is only determined by the difficulty in cultivating land and advances a supply and demand argument in the determination of the rate of profit. The role ascribed to unproductive consumption in economic growth by Malthus is a kind of autonomous consumption, very different in nature to Sismondi’s discussion of wage consumption—consumption that is \textit{induced} by income. Section 9.1 lays out some preliminaries and in section 9.2, Malthus’s theory of value and distribution is presented. Section 9.3 contains an account of his growth dynamics, in particular, the role of investment, the role of demand and the limits imposed by demand on technological progress. Section 9.4 explores the important role played by unproductive consumption in maintaining adequate effective demand. Section 9.5 concludes the chapter.

9.1 Introduction

Wealth, in Malthus, ‘is confined to material objects’ (Principles: 26). He reiterates the durable nature of wealth several pages later: ‘[s]ome degree of duration, and a consequent susceptibility of accumulation, seems to be essential to our usual conceptions of wealth…’ (Principles: 44-5). As with Smith, Ricardo and Sismondi, the distinction between productive labour ($L_P$) and unproductive labour ($L_U$) ‘is closely connected with the definition of wealth’ (Principles: 29). However, services, especially those related to trade (‘mercantile capital’

\textsuperscript{70} The text used here is John Pullen’s Variorum edition published as two volumes in 1989. Unless otherwise specified, all quotations are from edition 1 of the Principles published in 1820. Excerpts from edition 2 (posthumously published in 1836) are used only if Malthus significantly revised his argument from that in edition 1.
as Malthus terms it), which add value to material objects are considered part of \( L_p \) (Principles: 36-7). \( L_U \) comprises the services of those such as menial servants, soldiers, physicians, surgeons, judges, lawyers and the clergy (Principles: 32, 36, 477). Malthus strives to present a clear and consistent definition of productive and unproductive labour on the basis of the value added (Principles: 38-9); \( L_U \) ‘replace[s] little or no capital’ (Principles: 39). While this is by and large correct, one wonders how material or durable luxury production can be attributed to \( L_p \). This is the same sort of problem we find in Sismondi (see section 8.1). In another instance, Malthus treats the following marketed service as part of \( L_p \):

...the song of a strolling actress, or the declamation of a speaker at the Westminster Forum, would be the result of productive labour, because paid for; while a very superior song by a lady, or a speech in the House of Commons from the first orator of the age, abounding in eloquence and information, would be unproductive.

(Principles: 41)

But any society requires both productive and unproductive labour to function.

Every society must have a body of unproductive labourers; as every society, besides the menial servants that are required, must have statesmen to govern it, soldiers to defend it, judges and lawyers to administer justice and protect the rights of individuals, physicians and surgeons to cure diseases and heal wounds, and a body of clergy to instruct the ignorant, and administer the consolation of religion. No civilized state has ever been known to exist without a certain portion of all these classes of society in addition to those who are directly employed in production.

(Principles: 477)

Like Smith, Malthus fails to provide a coherent and consistent definition of \( L_p \) and \( L_U \) in relation to capital and wealth. Capital cannot be equated with productive labour in Malthus, although he strives for such a conception (cf. Principles: 31).

According to Malthus, ‘capital is that particular portion of ... [material] possessions ... which is destined to be employed with a view to profit’ (Principles: 293). Malthus regards gross revenue as a better indicator of wealth than net revenue, and criticises Quesnay for focusing exclusively on the net revenue (Principles: 423). This is because technological progress can increase the net revenue at the expense of the gross revenue, a possibility which Ricardo acknowledges (see the brief discussion on this involving Smith, Ricardo and
Sismondi in section 8.3). Gross revenue, as in Smith, Ricardo and Sismondi, is realized in the form of rents, profits and wages (*Principles*: 304).

### 9.2 Theory of value and distribution

The theory of value in Malthus, as noted in the introductory paragraph of this chapter, is built on the principle of supply and demand, and not on more persistent and permanent forces as Cantillon’s ‘intrinsic value,’ Turgot’s ‘fundamental price’ or Smith’s and Ricardo’s ‘natural price’. Malthus acknowledges that the principle of supply and demand will ensure uniformity in the prices of commodities but the reasoning is carried out by recourse to temporary market variables. The following extract is also interesting because he cites Turgot.

> After a certain time it might be expected that an average would be formed, founded on all the offers of bread, compared with all the offers of venison. And thus, as is very happily described by Turgot, a current value of all commodities in frequent use would be established.

(*Principles*: 54)

Malthus prefers referring to Smith’s ‘natural price’ as ‘the necessary price’ (*Principles*: 83).

> The natural or necessary prices of commodities depend upon the amount of capital which has been employed upon them, together with the profits of such capital at the ordinary rate during the time that it has been employed.

(*Principles*: 103)

But for Malthus, it is the principle of supply and demand which determines both market and natural prices (cf. Bleaney 1976: 52).

> ...the relation of the supply to the demand, either actual or contingent, is the dominant principle in the determination of prices whether market or natural, and that the cost of production can do nothing but in subordination to it, that is, merely as this cost affects actually or contingently the relation which the supply bears to the demand.

(*Principles*: 76)

The ‘market or natural’ price is determined by the principle of supply and demand which in turn is affected by the ‘cost of production’. Given that Malthus explicitly ascribes the dominant explanatory role to supply and demand in the determination of both natural and
market prices, it not clear why Costabile’s interpretation concentrates on a labour commanded theory of value in Malthus (Costabile 1983: 148-9). Furthermore, Costabile treats Malthus’s natural prices (and the associated rate of profit) as those prices which ensure reproduction of the economy – that is, keeps ‘the level of employment and production unchanged’ (Costabile 1983: 167). It is not at all clear why this should be the case in Malthus given his supply-and-demand explanation of prices. Malthus employs the principle of supply and demand in the determination of profit rates as well, to which we turn to below.

The rate of profits is the ‘proportion which the difference between the value of the commodity produced, and the value of the advances necessary to produce it, bears to the value of the advances’ (Principles: 262; ‘2nd edn’). The wages of labour, writes Malthus, is the largest component of the advances ‘and the most important’ (Principles: 294). Profit rates tend to equalize across sectors in an economy: ‘profits in the same country tend to an equality’ (Principles: 296; also 317). What determines the rate of profits in Malthus?

When capital is really abundant compared with labour, nothing can prevent low profits; and the greatest facility of production is incapable of producing high profits, unless capital is scarce compared with labour.

(Principles: 301-2)

The competition of increasing capital in manufactures and commerce would reduce the rate of profits…. (Principles: 304)

... profits ... would be low, because ... the supply of capital would be abundant compared with the demand [for the products of capital]; ... and thus the value of each [rents, profits and wages] would be regulated by the great principle of demand and supply.

(Principles: 278; ‘2nd edn’)

Thus, profit rates are determined by ‘the great principle of demand and supply’ (Principles: 310). In other words, the ‘principle of the competition of capital’ determines the rate of profit in Malthus (Principles: 317). Malthus argues at length in Chapter V of the Principles

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71 This paragraph is not present in the second edition. Also, the paragraph containing the following sentence has been deleted: ‘[a]nd yet in fact there is no other cause of permanently high profits than a deficiency in the supply of capital...’ (Principles: 311).
that Ricardo’s theory of profits – the rate of profit is determined by the labour time required to produce the real wage on no-rent land – is incomplete\textsuperscript{72} because he does not pay attention to the effects of ‘the relative abundance or scarcity of capital’ (cf. \textit{Principles}: 371).

\begin{quote}
...in the actual state of things in most countries of the world ... the rate of profits will practically depend more upon the causes which affect the relative abundance or scarcity of capital, and the demand for produce compared with the supply, than on the fertility of the last land taken into cultivation.
\end{quote}

\begin{quote}
\textit{(Principles}: 325)
\end{quote}

Malthus points out that ‘high profits and high real wages are found together’ (\textit{Principles}: 302; cf. 305, 310-1) which does not deny Ricardo’s theorem which states that a rise in the real wage reduces the rate of profit (in the sense that high absolute real wages and profits are consistent with an inverse relation between the wage share and the general rate of profit); also, it is not clear what Malthus means by ‘high’.\textsuperscript{73} Malthus here incorrectly extends the principles of demand and supply to the ‘necessary price’ of commodities as well as to the determination of profit rates.

Ricardo rightly treats the variations in demand and supply of commodities and the consequent effects on the actual rates of profit as temporary; for, the very same ‘principle of competition’ which Malthus adopts will ensure that profit rates are equalized because of the free mobility of labour and capital (see section 7.2 for Ricardo’s theory of value and distribution).

But in withdrawing capital from one employment and placing it in another, there is almost always a considerable loss. ... the power of the whole capital to command the same quantity of labour would evidently depend upon the contingency of the vacant capitals being withdrawn undiminished from their old occupations, and finding immediately equivalent employment in others.

\begin{quote}
\textit{(Principles}: 404)
\end{quote}

\textsuperscript{72} Malthus admits that fertility of the land and agricultural improvements influence profits (\textit{Principles}: 313, 371).

\textsuperscript{73} But see Costabile (1983: 146-7) who suggests that Malthus fully recognised the inverse relation between the real wage and the rate of profit.
Of course, there can be obstacles which inhibit the free mobility of labour and capital as already detailed by Sismondi (section 8.2). This leads to the possibility of withdrawn capitals being unable to find profitable employment (Principles: 368). Both Sismondi and Malthus therefore point out that ‘short periods’ must not be overlooked (Principles: 309; cf. Bleaney 1976: 48; Hagemann 1998: 320-1).

In Eltis’s growth model of Malthus, he assumes the growth of capital to depend on the rate of profit; if the actual rate of profit is higher than the rate of profit consistent with a constant capital stock, ‘[c]apital breeds like labour’ (Eltis 1984: 143). Adopting a similar reasoning, Costabile (1983: 145) writes that ‘investment is a function of the rate of profits’ (also Costabile & Rowthorn 1985: 423). This can only be a temporary phenomenon and cannot possibly be employed to understand the long-run phenomenon of growth. Eltis constructs a marginalist growth model for Malthus, although he is correct in presenting a supply-and-demand approach in the determination of the rate of profit (Eltis 1984: 143-4), for it is, as mentioned previously, determined by transitory market variables. It is for the very same reason that Eltis emphasises the ‘role of effective demand in the determination of profits’ (Eltis 1984: 151).

The determination of the real wage in Malthus is similar to that found in other classical economists. Real wages are at customary subsistence levels and include luxuries too.

The real wages of labour consist of the necessaries, conveniences, and luxuries of life, which the money wages of the labourer enable him to purchase.

(Principles: 217; ‘2nd edn’)

They include commodities such as ‘leather, timber, soap, candles, cottons, woollens, &c. &c’ (Principles: 316). But as with commodities and the rate of profit, Malthus argues that ‘[t]he principle of demand and supply is the paramount regulator of the prices of labour as well as of commodities, not only temporarily but permanently...’ (Principles: 241). The real wages which are an indicator of the condition of the workers depend on two factors: (1) the change in the ‘funds for the maintenance of labour’ (Principles: 224; ‘2nd edn’; in the 1st edn, Malthus uses the phrase ‘resources of the country’) and (2) the ‘habits of the people in respect to their food, clothing, and lodging’ (Principles: 248). Malthus allows the
habits to change in the same direction as the change in the ‘funds for the maintenance of labour’ but he writes that the change in habits ‘can scarcely ever be considered as permanent’ (*Principles*: 248; cf. 249). This view, although consistent with Malthus’s adherence to the principle of supply and demand, is unsatisfactory given that habits are often irreversible, or at least, reversible only through a very difficult and painful process. Moreover, such a conception, which does not possess a floor below which the real wage cannot fall, is alien to Smith and Ricardo. Stirati (1994: 111; also 115-6) finds Malthus’s stress on natural factors, such as the available food and the reproductive instinct to be inferior to the other classical economists view of real wages which are determined by wider social and political forces (such as collective bargaining); but Malthus does observe that the reproductive instinct is determined by wider social and cultural factors with religion playing a dominant role (for instance, see *Principles*: 259-60). Like Ricardo (1951: 406; quoted in section 7.3), Malthus also notes that high wages can either lead to a rise in population or to an ‘improvement in the modes of subsistence’ – a hysteresis of the real wage, so to speak, is vaguely discernible (*Principles*: 250).

**9.3 Theory of economic growth**

Malthus, especially like his predecessor Smith, is interested in identifying the factors which generate economic growth – ‘the most immediate and effective stimulants to the continued creation and progress of wealth’ (*Principles*: 347). He rightly cites the main driver of growth in Smith as ‘the increase of the quantity and skill’ of productive labour (*Principles*: 37). Malthus identifies factors favourable to ‘production’ and to ‘distribution’ of the gross produce (cf. Eltis 1984: 158; Winch 1987: 85).

The three great causes most favourable to production are, accumulation of capital, fertility of soil, and inventions to save labour.

(*Principles*: 413)

The causes most favourable to that increase of value which depends upon distribution are, 1st, the division of landed property; 2dly, internal and external commerce; 3dly, the maintenance of unproductive consumers.

(*Principles*: 427)
The importance of both sets of factors is examined by Malthus in sec. VI of Chapter VII under the title ‘Of the Necessity of a Union of the Powers of Production with the Means of Distribution, in order to ensure a continued Increase of Wealth’ (*Principles*: 413).

The six causes mentioned in the two excerpts above can be found in the work of the classical economists prior to Malthus. Quesnay is the first to make explicit the link between net capital accumulation and economic growth; the importance of land fertility comes across vividly in Ricardo; and the role played by labour-saving inventions is visible in Smith, Ricardo and Sismondi. Cantillon had noted that land ownership often is a consequence of ‘violence and conquest’ and ‘that it always falls into the hands of a few in proportion to the total inhabitants’ (*Essai*: 31); the subdivision of land would enable ‘those who have accumulated small capitals’ to engage in production (*Principles*: 427). Quesnay had already, although incorrectly, noted the role of unobstructed international trade in economic growth owing to his unsatisfactory theory of value (section 3.4); we find a similar inadequacy characterising Malthus’s theory of value (*Principles*: 414). The importance of maintaining an inter-sectoral balance between necessary and non-necessary production, although implicit in Cantillon, becomes explicit in Quesnay (between ‘productive’ and ‘sterile’ expenditure) and more clearly stated in Steuart as a balance between agricultural and manufacturing production. The significance of the \( L_P/L_U \) proportion is discussed by Sismondi (section 8.4), but he chooses to focus on the inability of workers to contribute to consumption due to their depressed incomes. More will be said below about the importance of this proportion in Malthus’s growth theory; for now, we note his concluding observation that ‘the progress of wealth depends upon proportions’ (*Principles*: 515; also 489-90).

Saving, writes Malthus, is ‘the immediate cause of the increase of capital’ (*Principles*: 31). Net capital accumulation, as in Smith, Ricardo and Sismondi, is a necessary condition for economic growth: ‘[i]t is certainly true that no permanent and continued increase of wealth can take place without a continued increase of capital...’ (*Principles*: 351); also, as in their theories, a decision to save is the one and the same as a decision to invest in Malthus (cf. Bleaney 1976: 50-1; also Garegnani 1978: 339 and Winch 1987: 88). To reiterate, ‘saving from revenue to add to capital is an absolutely necessary step in the progress of wealth’ (*Principles*: 419). Eltis on the other hand argues, although
unconvincingly, that ‘saving and investment are distinct, \textit{ex ante}’ in Malthus (Eltis 1984: 181; also see 160, 163). Costabile takes a similar position as Eltis (Costabile 1983: 160-1; also Costabile & Rowthorn 1985: 423-4). Both Eltis’s and Costabile’s positions are untenable because saving and investment are one and the same, \textit{ex ante}, in Malthus.

Owing to the presence of diminishing returns to land, the availability of adequate ‘means of supporting labour’ depends on land fertility and agricultural improvements (\textit{Principles}: 294-5). However, growth arising from technological progress, as in Sismondi, is limited by the overall demand (cf. Eltis 1984: 151).

...a great demand for corn of home growth must tend greatly to encourage improvements in agriculture, and a great demand for labour must stimulate the actual population to do more work....

\textit{(Principles}: 324)

Inventions to save labour seldom take place to any considerable extent, except when there is a decided demand for them.

\textit{(Principles}: 401)

...the power of supply which it [inventions] furnishes [ought to] be accompanied by an adequate extension of the market.

\textit{(Principles}: 402)

What then, we may ask, is the consequence of a deficient demand in the face of rampant technological progress? Malthus’s answer as to the consequences of a deficient demand is exactly the same as that found in Smith and Sismondi and very similarly worded too (see the excerpts from both quoted in section 8.3).

...if production be in a great excess above consumption, the motive to accumulate and produce must cease from the want of an effectual demand in those who have the principal means of purchasing.

\textit{(Principles}: 7; ‘2nd edn’)

It is in this context that Malthus poses what we have called the Keynes question (in chapter 1): ‘how it is possible that the increased quantity of commodities, obtained by the increased number of productive labourers, should find purchasers...’ (\textit{Principles}: 353; cf. Bleaney 1976: 53-4; Eltis 1984: 153).
Malthus rightly notes that ‘population alone cannot create an effective demand for wealth’ (*Principles*: 350) and nor can investment be solely sufficient in demanding the gross product (see below). The nature of ‘effective demand’,74 according to Malthus, in a barter economy, is this:

...where the right of private property is established, and the wants of society are supplied by industry and barter, the desire of any individual to possess the necessaries, conveniences and luxuries of life, however intense, will avail nothing towards their production, if there be no where a reciprocal demand for something which he possesses.

(*Principles*: 348; also see 80, 411n; ‘2nd edn’)

For individuals to consume, they must have adequate income. This income is dependent on the nature of their employment which is further determined by the demand for labour. But the demand for labour is itself a derived demand, arising from the demand for commodities (*Principles*: 348-9). In addition to labour demand being a derived one, labourers are employed only if their value addition to the product is greater than their real wage.

...no productive labour can ever be in demand unless the produce when obtained is of greater value than the labour which obtained it.

(*Principles*: 348)

This characteristic of the social order under analysis is already present in Sismondi (see section 8.1). In the following chapter on Marx, this facet attains great importance for his theory of value.

Given that real wages are less than the value of the gross product and capitalists (landowners and other rich people) have a high propensity to save, the aggregate demand will be insufficient, Malthus asserts, in validating the gross product. It is here that unproductive labourers perform a crucial function by ‘stimulating others to produce, by the power which they possess of making a demand...’ (*Principles*: 43; cf. Winch 1987: 87). Malthus also recognises the capacity of foreign trade ‘to inspire new wants, to form new tastes, and to furnish fresh motives for industry’ which positively impact activity levels and economic growth (*Principles*: 470; also 412-3, 441, 448; cf. section 6.3 for a short account

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74 In edition 2, ‘effective’ is replaced with ‘effectual’, in order to maintain continuity and consistency with the usage of Smith.
of the role of foreign trade in Smith’s growth theory); their role as stimulants is also identified by Eltis (1984: 149) and Winch (1987: 91). There is a positive role played by aspirations in Malthus’s growth dynamics in so far as they stimulate production (Principles: 359). These tastes or aspirations are largely endogenous and predominantly driven by the state of economic growth. In connection with the flexibility of workers’ real wages, Malthus writes:

[w]hen the resources of a country are rapidly increasing, and the labourer commands a large portion of necessaries, it is to be expected that if he has the opportunity of exchanging his superfluous food for conveniences and comforts, he will acquire a taste for these conveniences, and his habits will be formed accordingly. On the other hand, it generally happens that, when the resources of a country become nearly stationary, such habits, if they ever have existed, are found to give way; and, before the population comes to a stop, the standard of comfort is essentially lowered.

(Principles: 248-9)

This passage, together with the behaviour of the real wage noted in section 9.2, suggests that the disequilibrium wage can alter the equilibrium wage in Malthus – the hysteresis of the real wage – also found in Steuart and Smith. However, in Steuart and Smith, consumption is relatively more irreversible than in Malthus.

9.4 Consumption and economic growth

As noted previously, in this chapter, and in the previous chapters, all classical economists except Sismondi identified decisions to save with decisions to invest. Both Smith’s and Ricardo’s growth theory note the positive effects of increasing the number and productivity of productive labour. Despite acknowledging the adverse effects on growth caused by demand deficiency, both Smith and Ricardo, perhaps owing to their different theoretical aims, do not pursue this possibility systematically. But the more significant reason behind this is their special assumption that planned saving and investment are one and the same thing. In Smith, we see that productivity gains are limited by the extent of the market (section 6.3); whereas Ricardo dismisses the role of demand as a determinant of the rate of profit while highlighting the role of demand in the determination of activity
levels (section 7.4). In Sismondi, when aggregate demand declines due to a fall in consumption demand, it dampens activity levels and economic growth.

In response to Ricardo’s argument that ‘demand is only limited by production’, Malthus writes that it is a ‘very serious error … in supposing that accumulation ensures demand; or that the consumption of the labourers employed by those whose object is to save, will create such an effectual demand for commodities as to encourage a continued increase of produce’ (Principles: 359). Keynes wrote approvingly of Malthus’s approach to political economy: ‘Malthus was already disposed to a certain line of approach in handling practical economic problems which he was to develop later on in his correspondence with Ricardo, a method which to me is most sympathetic, and, as I think, more likely to lead to right conclusions than the alternative approach of Ricardo’ (Keynes 1933: 102-3). The link between consumption and investment is clearly grasped by Malthus in the following extract: ‘no nation can possibly grow rich by an accumulation of capital, arising from a permanent diminution of consumption...’ (Principles: 370). Malthus illustrates the interdependence between consumption and investment through the following example.

While the farmers were disposed to consume the luxuries produced by the manufacturers, and the manufacturers those produced by the farmers, all would go on smoothly; but if either one or both of the parties were disposed to save largely, with a view of bettering their condition, and providing for their families in future, the state of things would be very different. The farmer, instead of indulging himself in ribands, lace, and velvets, would be disposed to be satisfied with more simple clothing, but by this economy he would disable the manufacturer from purchasing the same amount of his produce; and for the returns of so much labour employed upon the land, and all greatly increased in productive power, there would evidently be no market. The manufacturer, in like manner, instead of indulging himself in sugar, grapes, and tobacco, might be disposed to save with a view to the future, but would be totally unable to do so, owing to the parsimony of the farmers and the want of demand for manufactures.

(Principles: 363)

If both farmers and manufacturers reduce their consumption and save their income (assumed equal to investment), their products will remain unsold and consequently their ability to invest in the future will reduce because of their lower incomes. This will also

75 Keynes observes that the theoretical aims of Ricardo and Malthus are different: ‘Ricardo is investigating the theory of the distribution of the product in conditions of equilibrium, and Malthus is concerned with what determines the volume of output day by day in the real world’ (pp. 115-6).
induce a reduction in the rate of profit because they are determined by ‘the great principle of demand and supply’ (*Principles*: 310) and a decrease in prices (cf. Garegnani 1978: 338; Hagemann 1998: 322; Costabile 1983: 161 treats it as ‘a problem of realisation on the market’ and maintains that equality of aggregate demand and supply in Malthus is brought about through changes in the income distribution\(^76\)). Even though Malthus’s theory of value and distribution is theoretically unsatisfactory, his treatment of investment as dependent on consumption is of much theoretical value.\(^77\) This is similar to the inter-sectoral multiplier mechanism present in Quesnay (section 3.3) and Steuart (sections 5.3 and 5.4).

‘[T]he national saving ... must necessarily be limited by the amount which can be advantageously employed in supplying the demand for produce; and to create this demand, there must be an adequate and effective consumption either among the producers themselves, or other classes of consumers’ (*Principles*: 468). If the capitalists, landowners and other rich people are parsimonious, where will the demand for the gross product come from? This is a valid question for an economy which produces both necessaries and non-necessaries.

...the consumption and demand occasioned by the persons employed in productive labour can never alone furnish a motive to the accumulation and employment of capital; and with regard to the capitalists themselves, together with the landlords and other rich persons, they have, by the supposition, agreed to be parsimonious, and by depriving themselves of their usual conveniencies and luxuries to save from their revenue and add to their capital. Under these circumstances, I would ask, how it is possible that the increased quantity of commodities, obtained by the increased number of productive labourers, should find purchasers, without such a fall of price as would probably sink their value below the costs of production, or, at least, very greatly diminish both the power and the will to save.

(*Principles*: 352-3; also 365)

\(^76\) And Costabile & Rowthorn (1985: 424) strangely argue: ‘[t]he level of prices which equalises aggregate demand and supply also brings saving and investment into equality.’ However, Malthus is arguing that a mismatch between aggregate demand and aggregate supply will result in changes in investment and activity levels.

\(^77\) Given this dependence of investment on consumption and with investment entirely financed from saving, Costabile’s manner of modeling investment in Malthus’s growth theory is an unfaithful one: investment ‘can be defined as an autonomous component of aggregate demand, since it does not depend on current income’ (Costabile 1983: 162). But planned investment in Malthus is one and the same as planned saving which depends on current incomes.
...if the expenditure of the landlords, in addition to the expenditure of the two preceding classes, be found insufficient to keep up and increase the value of that which is produced, where are we to look for the consumption required but among the unproductive labourers of Adam Smith?

(Principles: 477)

The gap between gross product and investment (which includes workers’ real wages), according to Malthus, is to be filled up by unproductive consumption (see Principles: 463). This is so because $L_U$ does not produce material objects and also does not add value to them. The employment and consumption of menial servants, statesmen, soldiers, judges, lawyers, physicians, surgeons, clergy and other $L_U$ therefore attain significance. In fact, Malthus recognises their social as well as economic significance:

...such a body of persons as I have described is not only necessary to the government, protection, health, and instruction of a country, but is also necessary to call forth those exertions which are required to give full play to its physical resources.

(Principles: 478)

Moreover, Malthus, quoting Smith (WN: 181), posits that the desire for necessaries has a finite limit whereas that of non-necessaries ‘seems to have no limit or certain boundary’ (Principles: 468). This view is also present in Ricardo (1951: 253; see section 7.3) and Sismondi (New Principles: 74-5; see section 8.3).

Growth in Ricardo’s theory comes to a halt due to diminishing returns from land. Malthus argues that even before that happens, investment will fall due to a deficiency of aggregate demand.

...under a rapid accumulation of capital, or more properly speaking, a rapid conversion of unproductive into productive labour, the demand, compared with the supply of material products, would prematurely fail, and the motive to further accumulation be checked, before it was checked by the exhaustion of the land.

(Principles: 463)

Thus the stress on the importance of maintaining the proper ‘proportion’ between $L_P$ and $L_U$ (Principles: 464). If saving goes beyond a certain proportion (which is the same as saying

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78 But note that it is possible to show that there is a growth path associated with unproductive consumption which ensures equality between aggregate demand and aggregate supply and full employment of labour.
that too many $L_P$ are employed relative to $L_U$, it will depress activity levels, reduce economic growth and generate labour unemployment (cf. Pullen 1981: 273-4 who discusses this as an application of the ‘doctrine of proportions’). Saving, pushed to an excess, is detrimental to growth. According to Negishi, underlying the proper proportion between $L_P$ and $L_U$, is the idea of optimum propensity to save, at which productive labour has a high propensity to save whereas unproductive labour (landlords and government) have a low propensity to save (Negishi 1993: 125, n. 7).

But if the conversion of revenue into capital pushed beyond a certain point must, by diminishing the effectual demand for produce, throw the labouring classes out of employment, it is obvious that the adoption of parsimonious habits in too great a degree may be accompanied by the most distressing effects at first, and by a marked depression of wealth and population afterwards.

(Principles: 369)

Despite Bleaney correctly interpreting parts of Malthus’s theory, he fails to notice the importance of proportions in his growth theory (esp. see Bleaney 1976: 55-6); hence, he treats Malthus’s theory as a forerunner of the later ‘underconsumption theories of the over-saving type’ (Bleaney 1976: 49). Both Pullen (1982; 2008) and Winch (1987) adopt a similar interpretation as that contained in this chapter – that activity levels are demand constrained. There cannot be over-saving in Malthus as Bleaney suggests because of his assumption that planned saving is one and the same as planned investment. As Winch writes of Malthus:

[n]or did any other contemporary economist of similar prominence lay so much emphasis on the limits to stable growth arising from the failure of effective demand to expand in harmony with an economy’s aggregate supply or capacity to produce.

(Winch 1987: 77)

Labour unemployment is caused not only by a deficient aggregate demand, but also by disproportions between the demand and supply of labour arising from social factors.

Commodity supplies adjust to commodity demand and as Smith and Ricardo observe, labour supply adjusts to labour demand in the long-run. However, Sismondi and Malthus point out that labour supply can exceed labour demand for significant periods of time (Principles: 371) due to social and cultural factors (Stirati 1994: 105). Focusing on the
short-run, Malthus, as Sismondi, argues that labour supply does not immediately adjust to labour demand (Principles: 357). Also, ‘the supplies of labour and the supplies of capital do not always keep pace with each other’ (Principles: 306). Therefore, Malthus argues that encouraging investment and labour supply without a commensurate consumption and labour demand are ‘equally vain’ (Principles: 375; cf. Winch 1987: 81).

9.5 Conclusion

Malthus favours labour-saving technological progress only if it increases the gross produce; in the event that the gross produce does not increase and as a consequence employment of labour falls, Malthus does not support such technological progress and states his agreement with Sismondi (Principles: 426n). Thus, net product alone cannot provide a measure of the health of an economy: ‘[n]o description of national wealth, which refers only to neat revenue, can ever be in any degree satisfactory’ for ‘those who live on the wages of labour must be considered as the most important portion of the society’ (Principles: 423).

Despite Malthus highlighting the important role of unproductive labour in ensuring adequate demand, it needs to be noted that he is actually espousing the importance for the right \( L_P/L_U \) proportion; although there could be a \( L_U/L_P \) proportion which is undesirably high (Principles: 479). Hence, ‘[a] very large proprietor, surrounded by very poor peasants, presents a distribution of property most unfavourable to effective demand’ (Principles: 429; see 456 for the importance of workers’ consumption). However, Malthus (like Sismondi) is unable to ascertain this proportion which will keep the economy on a steady growth path (Pullen 1982: 278-9; Negishi 1993; cf. Costabile & Rowthorn 1985: 435 who also note that Malthus only posed the question and did not provide a solution).

To conclude, investment can no longer be treated as independent of consumption. Both Sismondi and Malthus recognise that investment is dependent on consumption via activity levels (sections 8.4 and 9.4). Therefore the question of whether aggregate demand growth validates aggregate supply growth is addressed, but not well answered (cf. Keynes 1936: 32 where he writes that ‘Malthus was unable to explain clearly (apart from an appeal to the facts of common observation) how and why effective demand could be deficient or
excessive...’). The question is not well answered because Malthus treats a decision to save as one and the same as a decision to invest.
Karl Marx undertakes a detailed critique of previous political economy in the *Theories of Surplus-Value* (published in 3 parts; *TSV I, II and III* hereafter). His notes on the workings of the capitalist production process are in *Grundrisse* and a mature and extensive treatment of the same subject forms the content of *Capital* published as three volumes (*Capital I, II and III* hereafter). Marx’s economics contains a theory of value and distribution and a theory of economic growth, both of which are similar in structure to that found in the classical economists. But there is a key departure – the central role played by money in a capitalist economy. In section 10.1, Marx’s characterisation of the nature of capitalist production is presented in brief besides other preliminaries. Section 10.2 summarises his theory of value and distribution. Section 10.3 presents his theory of economic growth. Subsequently, section 10.4 addresses the question of aggregate demand sufficiency in Marx. Finally, section 10.5 concludes the chapter.

10.1 Introduction

According to Marx, the ‘most elementary form of bourgeois wealth’ is the commodity which is produced by ‘productive labour’ (*TSV I*: 168). The two major social classes in Marx are capitalists and workers. The means of production are owned by the capitalists who require workers to carry out production. The remuneration of the money lenders and landowners, in the form of interest and rent, has their origin in the capitalist’s profit (*TSV I*: 153).

Capital is divided into constant and variable capital. The former is ‘represented by the means of production, by the raw material, auxiliary material and the instruments of labour’ whereas the latter is ‘represented by labour-power’ (*Capital I*: 202; also see 533, 571). Labour-power is unique because it ‘both reproduces the equivalent of its own value, ...
and also produces an excess, a surplus value...’ (Capital I: 202). This unique characteristic of labour is also present in Sismondi (New Principles: 81, 83; see section 8.1) and Malthus (Principles: 348; see section 9.3).

Surplus, as in classical economics, refers to what is left over from the gross output after allowing for the replacement of labour and capital (that is, depreciation). Marx, unlike some of his predecessors, defines the surplus very clearly: ‘surplus-value...is the fruit periodically yielded by capital; ...[it] is periodically consumed by the capitalist, or added to the fund that supplies his private consumption’ (Capital I: 554n). In other words, the surplus, as in the classical economists, can be used for net investment or for capitalists’ consumption. This ratio between net investment and (luxury or non-necessary) consumption is equivalent to Smith’s ratio between the additions made to productive ($L_P$) and unproductive labour ($L_U$). Marx appreciates the significance of Smith’s distinction between productive and unproductive labour in the study of political economy.

Productive labour is here defined from the standpoint of capitalist production, and Adam Smith here got to the very heart of the matter, hit the nail on the head. This is one of his greatest scientific merits (as Malthus rightly observed, this critical differentiation between productive and unproductive labour remains the basis of all bourgeois political economy) that he defines productive labour as labour which is directly exchanged with capital....

(TSV I: 153; also see the discussion in Grundrisse: 305-06n)

In short, productive labour produces capital (cf. Grundrisse: 304). Marx provides greater clarity to Smith’s rendition of this matter and to that found in Malthus, who heavily borrowed from Smith. (esp. see TSV I: 156, 161, 383-4, 389, 393-4, 398). The vendibility of the commodity is not what is important; rather, productive labour is ‘labour which produces surplus-value for the capitalist’ (Capital I: 477; also TSV I: 384).

Surplus value is generated in the production sphere and not in circulation or exchange (cf. Capital I: 160-1). The nature of capitalist production, with money being transformed into capital, is well expressed by Marx through his depiction of the monetary circuit, or what he calls the ‘general formula of capital’ (Capital I: 153; also see chapter 1 entitled ‘The circuit of money-capital’ in Capital II): $M-C-C’-M$, where $M$ refers to money at the beginning of the production process and $M’$ refers to the money supposed as greater in value than $M$, which is received once the commodity is sold. During the process of
production, the workers transform commodities, $C$, into a commodity containing a higher value, $C'$, thus creating surplus-value for the capitalists (Capital I: 148-9). $M'$ supposed as being greater than $M$ assumes tacitly or implicitly that the realization problem is solved. It is only after the commodity is sold that the capitalists realize the surplus-value as profits. That the surplus needs to be realized is a point strongly emphasised by Quesnay (section 3.2). Marx’s ‘general formula of capital’ strongly resembles the classical economists’ view of the economy as a circular flow. The latter amounts to this: given the gross product and the normal prices, unless the entire product is sold at least at these prices, planned expenditure will be insufficient to demand the products at the normal prices. Planned expenditure can fall short of that expenditure which is required for equilibrium if there are leakages from the circular flow in the form of saving (of which, hoarding is just a particular form). The possibility of hoarding as a leakage from the circular flow is not examined by Smith, Ricardo, Sismondi and Malthus in their respective growth theories but found in Quesnay, Turgot and Steuart. Real wages of the workers, as in Sismondi and Malthus, are less than the value they add to the commodity and the positive surplus value accrues to the capitalists.

The functions of money in Marx extend its their role solely as a medium of circulation; it can be hoarded because it performs the function of a store of value (Capital I: 130-4, 143-4, 167; Capital II: 86-7, 496-7). This is a significant advance over classical economics, as section 10.4 below will make clear. Next, a summary of Marx’s theory of value and distribution is presented.

10.2 Theory of value and distribution

The value of a commodity in Marx is determined by the labour time required, directly, and indirectly, the latter as embodied in the raw materials and machinery, in the production of that commodity. In an environment of free competition, the free mobility of labour and capital engenders a tendency for the rate of profit on capital advanced to be uniform across sectors (Capital I: 586-7; also Capital III: 196). A depiction of the mobility of capital is present as early as in Cantillon (Essai: 51-3; section 2.2). ‘[C]apital withdraws from a sphere with a low rate of profit and invades others, which yield a higher profit’ (Capital III: 195). Marx vindicates Ricardo’s and by extension, his own approach against Sismondi’s
criticism that the profit rates do not tend to be uniform across sectors due to the presence of obstacles (section 8.2).

Although this objection [by Sismondi] is quite correct, it does not in any way affect the theory, it leaves it quite untouched, because in this case it is invariably only a question of the more or less rapid or slow operation of the economic law.

\[(TSV \text{ II: 378})\]

It is this free competition which enables the classical economists to theorize natural prices to which market prices gravitate. Similarly, in Capital III, Marx deals with the transformation of values into ‘prices of production’. The latter are ‘centre[s] of gravity around which the daily market prices fluctuate’ or ‘oscillate’ (Capital III: 178, 181).

The price of production includes the average profit. We call it price of production. It is really what Adam Smith calls natural price, Ricardo calls price of production,\(^{80}\) or cost of production, and the physiocrats call prix nécessaire, because in the long run it is a prerequisite of supply, of the reproduction of commodities in every individual sphere.

\[(Capital \text{ III: 198})\]

The difficulties surrounding Marx’s attempt to transform values into prices will not be dealt with in this chapter or elsewhere (for substantial treatments, see Sweezy 1942: 109-30; Howard & King 1975: 143-9; Pasinetti 1977: 19-24; Garegnani 1984: 305-9).

Real wages, as in the classical economists, are determined exogenously, by wider social and political factors (cf. Robinson 1967: 29-34; Panico 1980: 174n; Eltis 1984: 238).

The labourer needs time for satisfying his intellectual and social wants, the extent and number of which are conditioned by the general state of social advancement.

\[(Capital \text{ I: 223}; \text{ see Grundrisse: 527})\]

In contradistinction ... to the case of other commodities, there enters into the determination of the value of labour-power a historical and moral element. Nevertheless, in a given country, at a certain period, the average quantity of the means of subsistence necessary for the labourer is practically known.

\[(Capital \text{ I: 168})\]

\(^{80}\) Ricardo uses the phrase ‘price of production’ once in chapter 32 entitled ‘Mr. Malthus’s Opinions on Rent’ (Ricardo 1951: 409).
As noted in section 10.1, workers employed in the production process reproduce their subsistence as well as generate surplus value for the capitalists. That is, the real wages of the workers enable the reproduction of their ‘labour-power’ (*Capital I*: 299). Just as the workers in Smith’s, Ricardo’s, Sismondi’s and Malthus’s economics can reduce consumption in order to save (sections 6.2, 7.2, 8.2 and 9.2 respectively), so can the workers in Marx’s economics: ‘[t]he workers should save enough at the times when business is good to be able more or less to live in the bad times, to endure short time or the lowering of wages’ (*Grundrisse*: 286). Workers’ ability to engage in saving reinforces the notion of wages being at customary levels and not at strict subsistence for ‘the definite social wants are very elastic and changing. Their fixedness is only apparent’ (*Capital III*: 188).

Temporarily, wages can be higher than customary subsistence if the demand for labour exceeds the supply on account of a rapid growth in investment and consumption caused by ‘the opening of new markets, or of new spheres for the outlay of capital in consequence of newly developed social wants...’ (*Capital I*: 575; cf. Sweezy 1942: 87). Changes in the real wage bring about changes in the rate of profit but the converse is not true: ‘[w]ages do not rise or fall because profit (surplus-value) falls or rises, but on the contrary surplus-value (profit) falls or rises because wages rise or fall’ (*TSV II*: 418). In the dynamics of the real-wage/profit-rate relation, for Marx, it is the real wage which is the independent variable.81 This inverse relation between the rate of profit and real wages is clearly articulated in Ricardo, but absent in Smith and Malthus because of their spurious notion that it is the competition of capitals which determines the rate of profit (see sections 7.2, 7.4 and 9.2).

According to Marx,

\[
\text{value} = \text{constant capital (c)} + \text{variable capital (v)} + \text{surplus-value (s)},
\]

the rate of exploitation = \(\frac{s}{v}\) and

the rate of profit = \(\frac{s}{(c+v)}\).

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81 There is a problem with the real wage being assumed as the independent variable because employment contracts are made in terms of money wages and not real wages.
all measured in labour time. Variable capital is equivalent to the customary wages of the workers (the unit of measurement is labour time). Marx terms $c/v$ the 'organic composition of capital' (Capital I: 574). Dividing the rate of profit, $s/(c+v)$, by $v$ and rearranging gives $(s/v)/[(c/v)+1]$. A higher organic composition of capital, ceteris paribus, lowers the rate of profit and a higher rate of exploitation, ceteris paribus, raises the rate of profit. Moreover, as noted in the previous paragraph, a higher real wage (that is, higher variable capital), ceteris paribus, lowers the rate of profit. Ricardo arrives at a similar result due to a reason with wider generality – the rising labour-time required to produce the real wage (upon which, diminishing returns to land, is one influence) (section 7.2). However, it must be noted that Marx criticized Ricardo’s theory of the falling rate of profit because he did not distinguish between fixed and circulating capital and therefore, in Marx’s framework, it is the rate of exploitation which actually falls in Ricardo and not the rate of profit (cf. Howard & King 1975: 108); for the same reason, Marx would have denied that Ricardo’s account had a wider generality. The tendency for the organic composition of capital to rise depends on the precise nature of technical progress and how the productivity gains are distributed. Hence, the tendency for the rate of profit to fall in Marx is best treated as a contingent one and not a certain one (cf. Levrero 2013: 103-5; see Sweezy 1942: 100-8 where factors which elevate the rate of profit are listed).  

Interest, the price paid for borrowing money, forms part of the capitalists’ profit. Industrial-capitalists borrow money from the money-capitalists (see Panico 1980: 170). In the following passage, Marx presupposes that money is lent so that it can be invested, a very similar assumption to that by Ricardo which led him to conceptualise planned saving as one and the same as planned investment (Ricardo 1951: 291; see section 7.3).

Loaning money as capital – its alienation on the condition of its being returned after a certain time – presupposes, therefore, that it will actually be employed as capital, and that it actually flows back to its starting point.

(Capital III: 349)

However, borrowing need not be solely for investment, it can be for luxury consumption as well, as Cantillon noted much earlier (see section 2.3). The rate of interest, according to

82 For a careful assessment of the nature of technical progress in Marx, see Kurz 2010: 1211-6.
Marx, is the part of the rate of profit which is paid by ‘the industrial capitalist to the money-capitalist’ (Capital III: 358). The upper limit of the rate of interest is therefore the rate of profit (Capital III: 360). ‘The average rate of interest prevailing in a certain country … cannot be determined by any law’ (Capital III: 362).\(^{83}\) In Cantillon (section 2.3), Turgot (section 4.4) and Steuart (section 5.4), the rate of interest is determined by the demand for and supply of money. The rate of interest, in classical economists and in Marx, does not equilibrate planned saving and investment as in marginalist economics.

### 10.3 Theory of economic growth

Marx draws inspiration from Quesnay’s conceptual distinction between an economic system with zero net accumulation and positive net accumulation (see section 3.3; also see Gehrke & Kurz 1995). The surplus generated in production and realized in exchange accrues as profits to the capitalist. These profits can be used for net investment or for luxury consumption just as in the classical economists; this is expressed as the \(L_p/L_u\) ratio as discussed in previous chapters.\(^{84}\) ‘One portion is consumed by the capitalists as revenue, the other is employed as capital, is accumulated’ (Capital I: 554; also Capital III: 197). In simple reproduction, net investment is zero and the economic system just reproduces itself as to scale (Capital I: 532; Capital II: 66-7; Capital III: 839). In expanded reproduction, net investment is positive and the economic system grows (Capital I: 531). Marx describes the process of economic growth thus:

> [f]rom a concrete point of view, accumulation resolves itself into the reproduction of capital on a progressively increasing scale. The circle in which simple reproduction moves, alters its form, and, to use Sismondi’s expression, changes into a spiral.

\(\text{(Capital I: 545n; Sismondi’s expression is quoted in section 8.3)}\)

In order ‘[t]o accumulate it is necessary to convert a portion of the surplus-product into capital’ (Capital I: 544). Investment, ‘the transformation of money-capital into productive capital’ refers to ‘the purchase of commodities for the production of commodities’ (Capital II: 76; also see Capital III: 188). Classical economists by way of a special assumption identify

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\(^{83}\) Marx’s account of the rate of interest, therefore, foreshadows that of Keynes.

\(^{84}\) The theory of economic growth in Smith and Ricardo identifies a high \(L_p/L_u\) as a positive factor. Sismondi and Malthus rightly question this unconditional stand and point out that a high \(L_p/L_u\) does not necessarily generate growth and that a balance is needed between productive and unproductive labour (sections 8.4 and 9.4 respectively).
the decisions to save with the decisions to invest. Marx’s position on saving and investment will be taken up in section 10.4.

Improvements in labour productivity translate into a larger surplus assuming that productivity gains do not entirely translate into real wage rises. Consequently, so long as surplus value is realized, there is an increase in profits which enables a higher net accumulation. According to Marx, all \( L_p \) is productive, of surplus value.

The possibility ... of surplus-value therefore arises from a given productivity of labour, a productivity which enables labour-power to create more than its own value, to produce more than the needs dictated by its life process.

(TSV I: 48)

Interventions which reduce the time spent by workers on their own reproduction, such as an improved division of labour or new machinery in sectors which produce workers’ subsistence, generate more surplus value for the capitalist. The use of more machinery reduces the variable capital (wages of the living labour) and displaces some workers from the production process. Such technological progress tends to raise the organic composition of capital (Capital I: 582-9; cf. Howard & King 1975: 196; Eltis 1984: 253-7). In order to earn more profits, capitalists accumulate constant capital and try to reduce variable capital. However, note that this proposition is contingent on the precise nature of technological progress.

The available workforce is not fully employed in Marx’s conception of the capitalist economy, nor is there such a tendency as in marginalist economics. Particularly in Cantillon and Smith, a reverse causation to that found in marginalist economics is visible – supply of labour adapts to the demand for labour. But in Marx, there is no such tendency either. There is always an excess supply of workers (cf. Howard & King 1975: 119, 199-200). The demand for labour depends on the proportion of profits set aside for use as variable capital. Sismondi and Malthus highlight social factors which might induce labour supply to be consistently higher than labour demand (sections 8.4 and 9.3 respectively). In Marx, labour unemployment presents itself as an inherent feature of the capitalist order.

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85 For Smith’s special assumption, see section 6.3 and for that of Ricardo, see section 7.3.
Capitalist production can by no means content itself with the quantity of disposable labour power which the natural increase of population yields. It requires for its free play an industrial reserve army independent of these natural limits.

(Capital I: 594)

The pool of unemployed workers ‘furnishes to capital an inexhaustible reservoir of disposable labour-power’ (Capital I: 602). In sum, even with economic growth, there is no reason why labour unemployment should decrease (cf. Eltis 1984: 258).

Economic growth in Marx is determined by the proportion of surplus value which is converted to capital, the productivity of labour and improvements in the productiveness of machinery; but these are not sufficient for growth. These growth determinants are the same as that found in most of the classical economists, at least, from Smith onwards. Sismondi and Malthus objected to the over-emphasis given to the supply-side factors, particularly by Ricardo. Viewing the economic process as a circular one between production and consumption, as in Quesnay, it is only natural for Marx to highlight the role of demand in economic growth – this forms the sufficiency condition. To elaborate, the supply-side factors, more or less common to the classical economists and Marx, are necessary but not sufficient for economic growth. Together with demand growth, one has the necessary and sufficient conditions (so demand growth by itself is not sufficient). The significance of demand (as expressed by sales) is made explicit in his formulation of the nature of capitalist production: \( M\cdot C\cdot C'\cdot M' \).

...it is the reconversion of commodities \([C']\) into money \([M']\), their sale, which restores to the capitalist his variable capital in the form of money-capital, which he may advance once more for the purchase of labour-power.

(Capital II: 403)

It is only when commodities are sold at their prices of production that the surplus value is realized. That surplus value is realized only through sales is expressed by Marx numerous times (for instance, see Grundrisse: 404; TSV I: 311; Capital I: 303, 529; Capital II: 38, 40, 74, 77, 78, 106, 129, 341, 396-7, 403, 424; Capital III: 244, 303-5).

The only condition which the act \( C'\rightarrow M' \) stipulates for capital-value to continue its circuit and for surplus-value to be consumed by the capitalist is that \( C' \) shall have been converted into money, shall have been sold. ... This point is important in a discussion of crises.
Thus, sales in the context of realization of the surplus value, assume importance in the ensuing discussion on the problem of demand deficiency in Marx (cf. Dobb 1973: 164).

10.4 The problem of demand deficiency

Hoarding, like any other form of saving, is a leakage from the circular flow. It implies that commodities are sold without an equivalent purchase by the capitalist; the difference is hoarded as money. Equivalently, a fall in demand has the potential to disrupt the circular flow as the surplus value is not realized. In short, positive saving, ceteris paribus, generates gluts in commodities and labour and depresses activity levels. So long as saving is positive, there is a gap and aggregate demand will not be adequate to validate the supply of aggregate output. A fall in capitalist saving reduces capital accumulation and invariably lowers the demand for labour and/or the capacity utilization. An account of hoarding is present in Quesnay, Turgot and Steuart (see sections 3.3, 4.4 and 5.3 respectively). However, the impact of hoarding is not systematically explored in connection with their respective theories of activity levels nor is it present in their attempts to explain economic growth.

Sismondi and Malthus highlight the need to have adequate consumption demand such that it validates the supply of aggregate product. Specifically, they attempt to identify the right proportion of productive to unproductive labour (investment to consumption) such that there is no demand deficiency (sections 8.4 and 9.4 respectively). Of interest to us has been the Keynes question: what mechanism ensures that there is sufficient aggregate demand to validate the supply of aggregate output? And, by extension, what mechanisms ensure that the growth in aggregate output is validated by an equivalent growth in aggregate demand? Similar questions are posed by Marx when discussing the problem of realizing surplus value (cf. Robinson 1967: 29).

An analysis of simple reproduction, as in Quesnay and Marx, makes transparent the necessary conditions which ensure production of the existing economic system on the same scale: sectoral and aggregate supplies and demands have to match. In Quesnay, there is no mobility of capital between the productive and sterile sectors and therefore it is not clear how the equilibrium is brought about; in fact, as noted in section 3.3, sectoral
supplies and demands are assumed to be equal. Marx, through his analysis of simple reproduction, underscores the need for sectoral and aggregate supplies matching demands (cf. Howard & King 1975: 183). This, he points out, is a delicate balance and therefore leads to frequent, albeit temporary, gluts in commodities (and in labour, which adds to the existing pool of unemployed labour) because of sectoral disproportions. Bleaney (1976: 106) argues that Marx assumes planned saving to be one and the same as planned investment (as it is in Smith and Ricardo) and that problems arise from the distribution of demand between sectors. But what is it that causes this maldistribution of demand between sectors such that there are recurrent gluts in commodities? The answer has to be found in leakages from the circular flow, which render planned investment unequal to planned saving. These leakages depress activity and employment levels.

In a method similar to Cantillon’s necessaries and non-necessaries sectors, Quesnay’s productive and sterile sector and Smith’s productive and unproductive labour, Marx divides the economy into two departments.\footnote{However, Marx’s department II cannot be treated as one which employs unproductive labour or as non-necessary because it provides the customary subsistence for all workers in the economy. In contrast, the distinction drawn by Cantillon, Quesnay and Smith, or at least their intention, shares a close resemblance.} Department I produces investment goods and department II produces consumption goods (for workers customary subsistence as well as luxury goods for capitalists). A possibility of overproduction\footnote{It is the structural interdependence between the two departments (or between various industries in the economy) which leads to overproduction. Marx writes: 
...the phenomenon of general over-production is derived from the interdependence not only of the workers directly employed in these industries, but of all branches of industries which produce the elements of their products, the various stages of their constant capital. \textit{(TSV II: 523-4)}

Overproduction, therefore, can be said to arise from the lack of coordination between investment plans of the various interdependent industries in an economy. Kenway calls this the ‘anarchy of production’ (Kenway 1980: 159n; also see 154-5). According to Howard & King (1975: 220), ‘the general basis on which crises arise is for Marx the inadequacy of any ex ante coordination between interdependent sectors of the economy’. Connected to all this is the idea of the accelerator, and in Marx’s case, it is about spill over effects from consumption-goods sectors to investment-goods sectors.} and underproduction always exists because the output capacity resulting from the supply of capital goods need not match the sectoral demands for output (see Sweezy 1942: 156-7 who discusses it under ‘crises arising from disproportionality’; cf. Bleaney 1976: 106-7).
Overproduction leads to a glut in commodities and causes a contraction of the aggregate output (cf. Sweezy 1942: 141; Howard & King 1975: 212; Dobb 1973: 162-3).

If capital stops short in the first phase $M-C$, money-capital assumes the rigid form of a hoard; if it stops in the phase of production, the means of production lie without functioning on the one side, while labour-power remains unemployed on the other; and if capital stops short in the last phase $C'-M'$, piles of unsold commodities accumulate and clog the flow of circulation.

(Capital II: 50)

Workers are rendered unemployed. Kenway rightly notes: ‘leakages from demand pose a threat to the successful sale of output at a price yielding the “customary” rate of profit’ (Kenway 1980: 164). That is, a ‘crisis results from [the] impossibility to sell’ (TSV II: 508; cf. Kenway 1980: 154, 157-8). However, owing to the free mobility of labour and capital, such disproportions are temporary, but are of a recurrent nature (also see Mongiovi 1990: 75; cf. Howard & King 1975: 194).

When Adam Smith explains the fall in the rate of profit from an over-abundance of capital, an accumulation of capital, he is speaking of a permanent effect and this is wrong. As against this, the transitory over-abundance of capital, over-production and crises are something different. Permanent crises do not exist.

(TSV II: 497n) 88

In other words, there cannot be a permanent glut in commodities nor of the capital stock. Ricardo is explicit about the possibility of temporary gluts (section 7.3). Over time, commodity supplies adjust to their demand and capacity adapts to demand. But labour unemployment persists as there is no tendency for labour supply to adapt to labour demand nor is there the reverse tendency found in marginalist economics for labour demand to adapt to labour supply.

Marx is also aware that a disproportion between capitalists’ accumulation and consumption (of capitalists and workers) can result in a general glut or a crisis; this is a

88 Milgate (1982: 61) is correct to label this statement of Marx as one depicting a long-period position – a position of equilibrium characterised by a uniform rate of profits across sectors, occasioned by the free mobility of labour and capital.
similar point as that present in Sismondi and Malthus that a balance is required between capacity and demand (sections 8.4 and 9.4).

...a crisis could only be explained as the result of a disproportion of production in various branches of the economy, and as a result of a disproportion between the consumption of the capitalists and their accumulation. But as matters stand, the replacement of the capital invested in production depends largely upon the consuming power of the non-producing classes; while the consuming power of the workers is limited partly by the laws of wages, partly by the fact that they are used only as long as they can be profitably employed by the capitalist class. The ultimate reason for all real crises always remains the poverty and restricted consumption of the masses....

(Capital III: 484; emphasis added)

Here, Marx’s identification of ‘the consumption of the capitalists’ as a constraint on ‘their accumulation’ points to the latter-day idea of autonomous consumption (of capitalists) determining activity levels and consequently the levels of accumulation. Economic crises, according to Marx, occur due to disproportions across the sectors in the economy and between capitalists’ accumulation (and consequent growth of capacity) and aggregate consumption. The latter concern is explicit in Sismondi (section 8.4) and Malthus (section 9.4) and the former can be found in the work of Steuart in an incipient form, in so far as he attends to the question of demand sufficiency much more than the others, in his discussion of the inter-sectoral links between the agricultural and manufacturing sector (section 5.3).

The link between the extant social order and the poverty of the workers is perhaps for the first time exposed and engaged with by Sismondi (section 8.2). Marx comments on Sismondi’s New Principles in the TSV.

Here, as regards the class of capitalists A, who produce articles which are directly consumed by the workers...a surplus fund is in fact created for the capitalist, since, in this roundabout way, he gives back to the worker only a part of his product while appropriating a part for himself. But this result follows not because he sells the entire product to the worker at the increased value, but precisely because the increase in the value of the product makes the worker unable to buy back the whole product with his wages, and allows him to buy back only part of it. Consequently, it is clear that demand by the workers can never suffice for the realisation of the surplus of the purchase price over and above the cost-price, i.e., the realisation of the profit and the “value” of the commodity. On the contrary, a profit fund only exists because the worker is unable to buy back his whole product with his wages, and his demand, therefore, does not correspond to the supply.
The wages of workers are inadequate to buy back the entire product (see Sweezy 1942: 176-7 who discusses it under ‘crisis arising from underconsumption’). That is, workers’ consumption alone cannot generate the required aggregate demand such that it validates the production (cf. Eltis 1984: 265; Desai 2010: 110-5). In addition to criticising Ricardo for overlooking the role money plays in the theory of economic growth, Marx observes that a general glut of commodities occurs when the real wages do not grow in line with labour productivity growth.

[Ricardo] overlooks the fact that the commodity has to be converted into money. The demand of the workers does not suffice, since profit arises precisely from the fact that the demand of the workers is smaller than the value of their product, and that it [profit] is all the greater the smaller, relatively, is this demand. The demand of the capitalists among themselves is equally insufficient. Over-production does not call forth a constant fall in profit, but periodic over-production recurs constantly. It is followed by periods of under-production etc. Over-production arises precisely from the fact that the mass of the people can never consume more than the average quantity of necessaries, that their consumption therefore does not grow correspondingly with the productivity of labour.

(TSV II: 468; the first square parenthesis are mine)

In the passage above, Marx draws out the implications of wages being less than the value added, over time. There is a problem here. Wages being less than the value added is axiomatic and it means that workers’ consumption can never match the supply of what they produce. But this cannot be synonymous with overproduction because otherwise production must contract until production, consumption and wages are equal to each other, and profits are zero. To put the contradiction another way, wages being less than value added and overproduction cannot both be permanent at the same time, if the cause of overproduction is attributed to wages being less than value added.

As noted previously, overproduction will not be permanent, but as Marx points out in the above passage, it will be periodic (cf. Howard & King 1975: 215-6). However, according to Bleaney, the ‘basis of Marx’s cycle is the fluctuation in the rate of investment’

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89 The proposition that wages do not grow in line with productivity increases, as pointed out earlier, is a contingent one. It depends on the nature of the productivity increase and on the extent to which workers share in that increase. Recall Smith’s belief that liberal capitalism would bring about a growth in real wages (section 6.4).
(Bleaney 1976: 110); Bleaney is not convinced of the significance of underconsumption in Marx’s theory and criticises Sweezy’s interpretation (Bleaney 1976: 110-8).\textsuperscript{90} But it is not clear why Marx thinks that the demand of the capitalists cannot fill up this gap. In fact, if investment demand (and/or some other source of demand) is sufficient and just sufficient to fill up the gap, there will be no overproduction. Marx, in this context, poses, what we call the Keynes question:\textsuperscript{91}

\begin{quote}
But as profit arises precisely from the fact that the workers can only buy back part of the product, the capitalist (the capitalist class) can never realise his profit as a result of demand from the workers, he cannot realise it by exchanging the whole product against the workers’ wage, but rather by exchanging the whole of the workers’ wage against only part of the product. \textit{Additional demand and additional buyers apart from the workers themselves are therefore necessary, otherwise there could not be any profit. Where do they come from?}
\end{quote}

\textit{(TSV III: 21; emphasis added)}

The gap, logically, can be filled up by investment demand. As Sismondi (section 8.2), Malthus (section 9.3) and Marx make evident, wages cannot generate sufficient demand to validate the supply of the entire product.

Marx’s analysis of money within the production process is a significant departure from the classical economists who treated money only as a medium of exchange in their theory of activity levels and economic growth (cf. Bleaney 1976: 107, 109; Howard & King 1975: 212, 218; Kenway 1980: 159; Milgate 1982: 55; Mongiovi 1990: 74). The function of money as a store of value plays an important role. Hence, capitalists can sell without making an equivalent purchase of commodities: ‘[c]ommodities are thus sold not for the purpose of buying others, but in order to replace their commodity-form by their money-form’ (\textit{Capital I:} 130). Since hoarding, the most prominent form of saving, is a leakage from the circular flow, Marx rightly comments that:

\begin{quote}
Hence, Bleaney writes: ‘there is no trace of underconsumptionism in his [Marx’s] theory of the trade cycle, which emphasises fluctuations in the rate of investment’ (Bleaney 1976: 118).
\end{quote}

\begin{quote}
Kenway poses the same question in the following manner: ‘will all capitalists be able to sell their output, and not merely sell, but sell at prices giving them the customary rate of profit?’ (Kenway 1980: 159; also see 162).
\end{quote}
[w]henever these hoards are strikingly above their average level, it is, with some exceptions, an indication of stagnation in the circulation of commodities, of an interruption in the even flow of their metamorphosis.

(Capital I: 144)

By an ‘average level’, Marx seems to suggest the existence of some money which is always present as a hoard, probably, as a sort of reserve to facilitate the production and circulation of commodities, and such an unusual rise in liquidity preference, after all, is a common feature of crises in the history of capitalism. Money can be hoarded by selling commodities without engaging in an equivalent expenditure (cf. Sweezy 1942: 137-8; Kenway 1980: 155). ‘[O]ne could also mean by the accumulation of money-capital the accumulation of wealth in the hands of bankers (money-lenders by profession), acting as middlemen between private money-capitalists on the one hand, and the state, communities, and reproducing borrowers on the other’ (Capital III: 478)\(^92\). Given this fact, it is no longer consistent to treat decisions to save as equivalent to decisions to invest as Smith and Ricardo do (cf. Garegnani 1978: 339n).

The splitting of exchange into purchase and sale makes it possible for me to buy without selling (stockpiling of commodities) or to sell without buying (accumulation of money). It makes speculation possible.

(Grundrisse: 200)

The fact that the production of commodities is the general form of capitalist production implies the role which money is playing in it not only as a medium of circulation, but also as money-capital, and engenders certain conditions of normal exchange peculiar to this mode of production and therefore of the normal course of reproduction, whether it be on a simple or on an extended scale – conditions which change into so many conditions of abnormal movement, into so many possibilities of crises, since a balance is itself an accident owing to the spontaneous nature of this production.

(Capital II: 499; emphasis added)

This divergence between saving and investment decisions makes crises highly probable, and the gap between aggregate output and wages is balanced by non-labour demand at any point in time only by accident.

\(^92\) There are references to financial intermediation in Cantillon (section 2.3), Turgot (section 4.4), Smith (WN: 350-9) and Ricardo (1951: 89, 363). But it is either assumed away or not systematically treated in their theories of activity levels and economic growth.
Since workers are paid less than the value they add and capitalists keep aside most of their profits for accumulation, in an economy which produces both necessaries and non-necessaries, there will be a periodic, but temporary, glut of commodities and according to Marx, a permanent glut of workers (cf. Robinson 1967: 48-50; Howard & King 1975: 223).

The logical solution, as Malthus suggests, comes from the consumption of the production by unproductive labour – the labour which is not productive of surplus-value. But Marx is very critical of such a resolution of the demand deficiency problem (see TSV I: 273; TSV III: 22); one reason is that the unproductive consumers (landowners particularly) are not essential to the process of production in the same way as capitalists or workers and secondly, Malthus’s solution does not address the exploitation faced by the workers and in fact promotes it.

But buyers who are not at the same time sellers, must be consumers who are not at the same time producers, that is unproductive consumers, and it is this class of unproductive consumers which, according to Malthus, solves the problem. ... The urge for accumulation is kept alive in the capitalist class by the fact that their returns are constantly larger than their outlays, and profit is indeed the stimulus to accumulation. In spite of this enthusiasm for accumulation, they are not driven to over-production, or at least, not at all easily, since the unproductive consumers not only constitute a gigantic outlet for the products thrown on to the market, but do not themselves throw any commodities on to the market, and therefore, no matter how numerous they may be, they constitute no competition for the capitalists, but, on the contrary, all represent demand without supply and thus help to make up for the preponderance of supply over demand on the part of the capitalists.

( TSV III: 50-1)

Real political economy à la Smith treats the capitalist only as personified capital, M—C—M, agent of production. But who is to consume the products? The labourers?—but they don’t. The capitalist himself? Then he is acting as a big idle consumer and not as a capitalist. The owners of land and money rents? They do not reproduce their consumption, and thereby are of disservice to wealth.

( TSV I: 262)

‘The disproportion between the labouring population and production is eliminated by part of the product being devoured by non-producers and idlers’ (TSV III: 53). The correct formulation of the \( L_P/L_U \) distinction in the context of growth theory is that it reflects the balance between capacity creating expenditure and non-capacity creating expenditure. Capital expenditure, which in both the classical economists and Marx includes wages of productive labour, is capacity-creating whereas unproductive consumption expenditure is
non-capacity-creating, and so the latter is capable of filling the gap between capital expenditure and aggregate supply. Analytically speaking, Keynes replaces unproductive consumption expenditure with government expenditure.

A gap exists between aggregate output and aggregate demand as Sismondi, Malthus and Marx point out. ‘To say that production and consumption are identical or that consumption is the purpose of all production or that production is the pre-condition of all consumption, is of no help in this connection’ (TSV I: 273). This statement by Marx is a critical response to Smith’s view of consumption as the final goal of production (section 6.3) and Ricardo’s assumption that production will generate a proportionate consumption (section 7.3). Marx rightly writes: ‘Adam Smith did not yet know the phenomenon of over-production, and crises resulting from over-production. ... In fact he sees in the accumulation of capital an unqualified increase in the general wealth and well-being of the nation’ (TSV II: 525; see section 6.4).

According to Marx, there is no one-way causation running from demand to supply or vice versa: ‘demand determines supply, just as supply determines demand, and production determines the market, as well as the market determines production’ (Capital III: 191). However, such a view does not nullify the autonomy of demand in general or consumption demand in particular and is consistent with excess labour supply.

10.5 Conclusion

In Ricardo, the rate of profit is determined by the production methods and the real wage, without aggregate or sectoral demands playing any role. Marx goes further and discusses the problems which arise in the event of the surplus value not being realized. It is investment demand and unproductive consumption which must fill the gap between gross output and wages in Marx, but the balance is merely coincidental, at any point in time, with supply adapting to demand in the long run. Marx’s discussion of the possibility of crisis and its periodic occurrence due to the factors mentioned in the preceding section brings to the forefront the importance of aggregate demand as the determinant of aggregate supply and makes clear the problems arising from a deficient aggregate demand (cf. Bleaney 1976: 107). It is not solely about sectoral disproportions anymore. As Kenway aptly puts it:
No longer is it only a question of how expenditure is distributed. Instead, it is whether total expenditure is sufficient for all capitalists to sell their output at the customary rate of profit. The level of aggregate demand is important in its own right. (Kenway 1980: 160n)

Money, playing its role as a store of value, via hoarding causes leakages from the circular flow. Due to such leakages, planned saving and planned investment are not equal and as a consequence, aggregate demand does not match aggregate supply. The disequilibrium with respect to commodities is temporary, although periodic and common. And importantly, there are no tendencies which ensure the full employment of labour.
CHAPTER 11

Kalecki and Classical Economics

The approach to economics in Cantillon, Quesnay, Turgot, Steuart, Smith, Ricardo, Sismondi and Malthus finds a mature treatment in the work of Marx. In particular, the work of Quesnay, Smith, Ricardo and Sismondi occupies a pivotal position. Rosa Luxemburg, in her Accumulation of Capital (1913), employs Marx’s analytical framework to pose, what we have called the (dynamic) Keynes question: where does the continuous growth in demand which would validate the growth in supply come from? Subsequently, in 1933, with strong influences from Marx and Luxemburg, Michał Kalecki develops his theory of activity levels and employment. Kalecki (in 1933) and Keynes (in 1936) independently discovered the principle of effective demand (cf. Pasinetti 1974: 35). It will be seen in this chapter that the problem of demand deficiency, so to speak, – or equivalently, the question of aggregate demand sufficiency – organically grew out of classical economics, with Luxemburg’s theory of capital accumulation acting as the bridge between classical economists, Marx and Kalecki.

Section 11.1 brings together the link between consumption demand and economic growth in classical economics and Marx, already contained in the previous chapters. The pivotal position of Luxemburg in the Marx-Luxemburg-Kalecki sequence (with respect to the question of demand sufficiency) is presented in section 11.2. Section 11.3 discusses the principle of effective demand in Kalecki and Keynes and its not-so-shadowy presence in the classical economists in their exposition of the circular flow. Section 11.4 concludes the chapter.

11.1 Consumption demand and classical growth theory

It is the lack of an analysis of planned saving and planned investment in the work of classical economists, except for fragments in Sismondi and Marx, which allows us to focus on consumption demand. A very special assumption is made by the classical economists, especially Smith and Ricardo (and even Malthus), when they treat planned saving as one and the same as planned investment. As a consequence of such an assumption, the problem of demand insufficiency is not manifest in Smith and Ricardo. Growth, in Smith, is determined by the gap between aggregate output and real wages which is filled by
investigation. Similarly, in Ricardo, it is the same gap which is necessary for growth. For both Smith and Ricardo, the higher the ratio of productive to unproductive labour over time, the higher is the rate of growth. In contrast, Malthus and Sismondi stress the need to have an optimum ratio between the two such that (unproductive) consumption demand plus investment demand is sufficient to fill the gap between aggregate output and real wages, thereby validating the output supplied. Sismondi does not assume that planned saving and planned investment are one and the same thing. Although Malthus makes the very special assumption, he rightly points out the dependence of investment on consumption, a kind of an accelerator idea (see section 9.4). Marx furthers the analysis found in the classical economists particularly through the attention paid to the nature and role of money in a capitalist economy. In Marx, the balance between aggregate supply and aggregate demand is accidental because of the unstable nature of investment demand.

From the exposition contained in the previous eight chapters, the following can be said about classical growth theory. Firstly, net capital accumulation is necessary for growth. Secondly, all the authors are aware of the constraints posed by aggregate demand on activity levels and growth, but due to the special assumption found in Smith and Ricardo especially, problems arising from insufficient aggregate demand do not emerge. Cantillon, Quesnay, Turgot and Steuart particularly emphasise the role of consumption demand in the determination of activity levels. Of them, Quesnay and Turgot engage with leakages from the circular flow more closely, but it has no impact on their theory of activity levels and economic growth; perhaps, this is owing to them assuming planned saving to be one and the same as planned investment (sections 3.5 and 4.5 respectively). Thirdly, the further dynamic question of whether the growth in productive capacity from net investment will be validated by further growth in demand is not addressed. Fourthly, there are no automatic tendencies which ensure that the demand for labour adapts to its supply. As a matter of fact, in the classical economists and Marx, the equilibrium in the commodity market does not simultaneously engender an equilibrium in the labour market.

The classical economists before Smith, with the exception of Cantillon, possessed a rudimentary, but clear account of the necessary role of capital accumulation in determining activity levels (for Turgot’s and Steuart’s accounts, see sections 4.4 and 5.3 respectively). The first theory of capital accumulation is to be found in Quesnay, despite
his theory of profits being highly unsatisfactory (section 3.2). All the classical economists and Marx acknowledge that net capital accumulation is necessary for economic growth. But net capital accumulation, as Malthus, Sismondi and Marx point out, is not sufficient for economic growth. The idea that demand should validate supply is to be found in the concept of the circular flow, found in Cantillon, but given significantly greater analytical clarity by Quesnay, and also present in Turgot and vaguely in Steuart. Marx’s depiction of the circuit of capital and the circular flow notion as outlined by Quesnay possess a strong conceptual affinity. Moreover, in both these accounts, it is demand which is relatively autonomous. That is, commodity supplies adapt to commodity demands. In addition to demand (particularly consumption demand) being the autonomous element, there is much discussion of taste formation in Cantillon and Steuart, which is valuable in developing a classical theory of consumption along the lines of James Duesenberry’s relative income hypothesis (more on this will be said in chapter 12).

The concept of circular flow conspicuous in Quesnay and Turgot suggests that if the planned expenditure is insufficient to demand the aggregate output at normal prices, then activity levels will fall in the subsequent period of production. It is in this context that they discuss saving, a leakage from the circular flow. Both Quesnay and Turgot mention hoarding, a particular form of saving, as detrimental to activity levels. Hoarding or what Steuart calls ‘laid up’ profits is correctly treated as a leakage from the circular flow. The concept of circular flow is present in Cantillon, but not as analytically vivid as in Quesnay. Closely related to this concept is the notion of the surplus in classical economics. As a matter of fact, it is the notion of the surplus which renders classical economics a distinct approach in understanding economic processes and makes it stand in marked contrast to marginalist economics, where there is no surplus to be found because ‘under competitive conditions, there are “necessary” rates of return to all factors of production, including both labour and capital (at least at the margin), such as to bring forth the requisite quantities of factors to ensure the equilibrium of the economic system’ (Aspromourgos 2011: 355-6).

Before Smith, the dominant role of consumption demand in the determination of activity levels was discussed in relation to the concept of circular flow primarily, and also in the context of the realization of the surplus. From Smith onwards, the importance of demand in general is discussed in the context of the realization of the surplus (and the
subsequent generation of incomes, notably profit income), which is conceptually distinct from the existence of the surplus itself. In Smith, the ‘extent of the market’ poses a constraint on the capacity growth generated by net capital accumulation. Sismondi and Malthus raise objections to Ricardo’s lack of attention to demand and they emphasise the economy’s need to possess the right proportion between productive and unproductive consumption in order to ensure the sufficiency of demand such that the surplus can be realized. Sismondi also utilizes the concept of the circular flow which translates into a spiral when discussing growth: ‘[a]ggregate consumption determines an equal or greater reproduction. It is here that the circle can enlarge itself and change into a spiral’ (New Principles: 104). It is in Marx that the problem of demand deficiency gets tackled more vigorously and receives an extensive treatment, albeit scattered across his various texts. Demand deficiency adversely affects the realization of the surplus (or surplus value) and leads to the possibility of crises. In sum, Sismondi, Malthus and Marx point out the problems with the crypto-supply-side growth theory found in Smith and Ricardo.93

Conceptually, the surplus and its realization forms need to be kept distinct. Surplus, in classical economics, refers to that part of the aggregate output which is left over once the capital replacement requirements are met. If workers have a share in the surplus, then the surplus has to be distributed between workers and capitalists as wages and profits (and rents). The classical economists and Marx assume workers’ wages to be at subsistence levels, a magnitude determined by wider social and political factors. This assumption vaguely implies that the wages are just sufficient for their necessary consumption.94 The surplus, however, can be said to be realized if and only if the entire output finds buyers and is sold at least at their normal prices. The existence of a surplus does not and cannot guarantee its realization, except when the special assumption is made that planned saving is one and the same as planned investment and for every successive period, in a growth context.

93 Pasinetti (1997: 101) also notes that the problem of demand deficiency is present in classical economics with Sismondi, Malthus and Marx emphasising the periodicity of market gluts.
94 There are references to workers’ saving in Cantillon, Steuart and Smith thereby indicating that by subsistence wages, classical economists did not refer to a biological subsistence.
Quesnay identifies the role workers’ consumption plays in maintaining the *bon prix* of agricultural commodities, the *bon prix* being a variable analogous to normal prices in spirit (section 3.4). In Sismondi, depressed wages, which in turn are a product of the extant social order, are considered the main factor through which a general glut occurs; in other words, such depressed wages and consequently low workers’ consumption negatively affect the realization of the surplus (section 8.4). When the entire surplus is not realized (at normal prices), capitalists will be unable to obtain their required (normal) profits, which will consequently affect net investment and aggregate output in the following period of production. The problems associated with the realization of profits have been noted in the Ricardo chapter (section 7.4). To reiterate, even if the rate of profit is the only motive for accumulation, the realization of the rate of profit associated with any given real wage and production methods depends upon the sale of the produced and supplied aggregate output (at least) at natural prices. And these natural prices may not prevail if there is insufficient demand for the productive capacity generated by the additional accumulation. This issue finds a clearer articulation in Marx in what he calls the ‘general formula of capital’ (*Capital I*: 153; see section 10.1). Although the surplus is generated in the sphere of production, it is realized only in the sphere of exchange. Due to the volatility attributed by Marx to investment demand, the gap between gross output and real wages (and unproductive consumption) is not always entirely filled by other sources of demand leading to periodic crises (section 10.5).

The analytically coherent formulation of the productive-unproductive labour/consumption distinction in the context of growth theory is that it reflects the balance between capacity-creating expenditure and non-capacity-creating expenditure. Capital expenditure, which in both the classical economists and Marx includes wages of productive labour, is capacity-creating whereas unproductive consumption expenditure is non-capacity-creating, and so the latter is capable of filling the gap between capital expenditure and aggregate supply. In so far as investment demand is ultimately a derived demand, it is not in general feasible for investment demand to fill the gap entirely. Roy Harrod’s model of growth demonstrates the case of ongoing growth in an economy with

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95 I write ‘in spirit’ owing to the logical problems with Quesnay’s price theory, outlined in some detail in section 3.2.
capital goods alone, but the growth path is a highly unstable one (Harrod 1939). Harrod distinguishes between three rates of growth: ‘warranted’, ‘actual’ and ‘natural’. At the warranted rate of growth, aggregate output, aggregate demand, capital stock and employment of labour all grow at the same rate with aggregate supply validated by aggregate demand. Only when the actual rate of growth equals the warranted rate of growth and the natural rate of growth (of the labour force) will there be full-employment growth. Logically, this full-employment growth path exists but there are no economic forces which ensure the equality of actual, warranted and natural rates of growth. Similarly, Domar (1946) presents a growth model that determines the rate of growth of investment required to keep the economy on a full-employment growth path with the productive capacity fully utilised. That is, logically, there can be a path of investment that is appropriate to a full employment effective demand; it is self-validating but requires special assumptions: the full-employment saving must equal investment and the rate of growth of output must equal the growth of labour force plus the growth of labour productivity. Eltis shows that strong traces of Harrod’s growth formula can be found in Quesnay and Marx (Eltis 1998). From the discussion in section 11.1, it is perhaps possible to find traces not just in Quesnay and Marx, but also in Sismondi and Malthus. A qualification is necessary here. Quesnay, Sismondi, Malthus and Marx try to explain the forces determining activity levels and economic growth but at no point do they attempt to explain a full-employment growth path (as Harrod does with his natural rate of growth). In conclusion, consumption demand plays a dominant and a relatively autonomous role in the growth theory of the classical economists and Marx through the two related concepts discussed in this section – the circular flow and surplus realization.

11.2 Marx-Luxemburg-Kalecki

Employing the classical concepts of surplus and its realization, Marx is able to point out that periodic crises occur due to the recurrent insufficiency of demand. This is the point made earlier by Sismondi and Malthus. In Sismondi and Marx, since workers’ wages are less than the value they add to the product, workers’ consumption is never sufficient to buy back the entire product; together with the instability of investment demand, the realization of the surplus is not assured. To put it differently, the gap between the value of aggregate output at normal prices and aggregate real wages is not filled. Drawing on the
theoretical framework employed by Marx, Rosa Luxemburg engages closely with the problem of demand insufficiency in her *Accumulation of Capital* (*AC* hereafter) published in 1913 (cf. Groenewegen 2013: 71). Groenewegen (2013: 80) points out the strong likelihood of J. A. Hobson as also having ‘guided Luxemburg on the matter of demand deficiency’ alongside Marx. Hobson’s thesis, as presented in his book *The Physiology of Industry* co-authored with A. F. Mummery, was that too much saving is not good for the economy because it results in lowered consumption and consequently depressed activity levels. This was published in an intellectual and political climate where individual thrift was extolled and that of maintaining sufficient aggregate demand was neglected (for a concise account of Hobson’s economics, see Clarke 1987).

The object of her study is also a capitalist economy where ‘production is primarily production by innumerable private producers without any planned regulation’ (*AC*: 34, also see 78). In this economic system, the main aim of the capitalist ‘is the production of surplus value’ (*AC*: 37, 42). More precisely,

> [t]he aim and incentive of capitalist production is not a surplus value pure and simple, to be appropriated in any desired quantity, but a surplus value ever growing into larger quantities, surplus value *ad infinitum*.

(*AC*: 39)

Luxemburg possesses a theory of growth. By growth, she refers to ‘the gradual expansion of production beyond immediate requirements, and in a continual growth of the population itself as well of its demands’ (*AC*: 41). Wages of the workers are at subsistence levels, as in Marx and the classical economists (*AC*: 78). Her analysis of growth does not take into account foreign trade since Marx ‘treats the whole world as one nation’ (*AC*: 139). That is, the entire world is treated as a single closed economy.

According to Luxemburg, it is in Marx that we come across ‘the problem of the reproduction of the entire social capital’ after the attempt by Quesnay (*AC*: 31). But as previously noted, the problem is raised by Sismondi and Malthus as well. Marx looks at

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96 Luxemburg also recognises that foreign trade is excluded in the theories of Sismondi and Ricardo. ‘Right at the outset of their debate, Sismondi and Ricardo had agreed on a remarkably lucid and precise formulation of the problem, excluding the question of foreign commerce altogether’ (*AC*: 205).
simple as well as expanded reproduction, the former being the starting point or basis to examine the latter. Luxemburg explains the role of simple reproduction in the following extracts.

...Marx’s diagram of simple reproduction is valid as the starting-point and foundation of the reproductive process not only for capitalism but also, *mutatis mutandis*, for every regulated and planned economic order, for instance a socialist one.

(AC: 103)

In theory, the analysis of simple reproduction also provides the necessary starting point for all scientific exposition of enlarged reproduction.

(AC: 107)

As Kowalik (2014: 47) rightly observes, ‘it is a fundamental mistake to begin the analysis of accumulation by assuming what remains to be proven.’ In order to formulate the problem of reproduction in the most basic manner, Luxemburg, following Marx, considers ‘for the present only two departments of total capital: the production of producer goods, and that of consumer goods for workers and capitalists’ (AC: 83). These two departments are studied both in isolation and in relation to each other. The latter clarifies the intersectoral relations between ‘producer goods’ and ‘consumer goods’.

The two departments are interdependent, and are therefore bound to display a certain quantitative relationship, namely the one department must produce all means of production, the other all provisions for the workers and capitalists of both departments.

(AC: 84)

And although the absolute figures used in Marx’s scheme are arbitrary, the ‘quantitative relationship’ expresses fundamental relations in a growing economy. As Luxemburg observes, it is ‘the *quantitative ratios* which are relevant, since they are supposed to express strictly determinate relationships’ (AC: 122).

Net accumulation requires an increase in the production of constant capital (‘producer goods’) thereby enabling the capitalists to appropriate greater surplus value

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97 It is perhaps inappropriate to consider the consumption goods of capitalists as part of ‘total capital’ unless they refer to the goods necessary for the reproduction of the capitalists.
from the workers (AC: 40, 109). With simple reproduction, the constant capital warrants a strict renewal. Positive net accumulation forms the basis of enlarged reproduction.

[The] use of part of the surplus value (and in particular the use of an increasing part of it) for the purpose of production instead of personal consumption by the capitalist class, or else the increase of reserves, is the basis of enlarged reproduction under capitalist conditions of production.

(AC: 108)

That is, ‘the capitalists’ abstention from consuming the whole of their surplus value … [is] the foundation of accumulation’ (AC: 132). It is as if the capitalists on their own are transforming their saving directly into investment without requiring any wider saving-investment coordination.

Investment is a necessary condition for expanded reproduction, but it is not sufficient. In fact, for surplus value (or profits) to be realized so that it can be accumulated, it is necessary that ‘the commodities produced during the preceding period of production’ be successfully sold (AC: 40). In addition, the commodities produced in the current period ought to be profitably sold.

It is absolutely essential to the accumulation of capital that a sufficient quantity of commodities created by the new capital should win a place for itself on the market and be realized.

(AC: 44)

Moreover, if one group of capitalists decide to invest a large proportion of their profits, then what economic forces ensure that the increased output find adequate aggregate demand? If a gap exists, there will be a glut in the market. As in Marx, the following possibilities exist for the occurrence of an economic crisis. One possibility arises when all the capitalists decide to accumulate; as a consequence, the supply of their output rises but they are unable to find buyers. Another route is through the hoarding of money. Finally, there could be a disproportion with respect to the production and consumption plans of

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98 Hence, during expanded reproduction, ‘the proportion of constant to variable capital changes’ (AC: 110n). Luxemburg notes, ‘[t]his continuous qualitative change in the composition of capital is the specific manifestation of the accumulation of capital, that is to say of enlarged reproduction on the basis of capitalism’ (AC: 110).
the various industries. These three possibilities are contained in the following three excerpts respectively.

The ‘abstinence’ of the capitalists in Department I ... finds expression in a painful loss of consumers for whose expected demand production had largely been calculated. Since the capitalists of Department II, on whom we tried the experiment whether they might not possibly be the long-sought buyers of the additional product of accumulation in Department I, are themselves in sore straits—not knowing as yet where to go with their own unsold product—they are even less likely to be of any help to us. There is no shutting our eyes to the fact that an attempt to make one group of capitalists accumulate at the expense of the other is bound to get involved in glaring inconsistencies.

(AC: 150)

Money is withdrawn from circulation and accumulated as a hoard by the sale of commodities without a subsequent purchase. If this operation is conceived as one taking place universally, then it seems inexplicable where the buyers are to come from, since in that case everybody would want to sell in order to hoard, and no one would want to buy.

(AC: 140-1)

...a crisis could be explained only by a disproportion of production in various branches, and by a disproportion of the consumption of the capitalists and the accumulation of their capitals.

(AC: 332)

In AC: 332 Luxemburg notes that a disproportion between capitalists’ consumption (or autonomous consumption, to use the latter-day terms) and accumulation leads to a crisis. Furthermore, a crisis could also arise from the disproportion in production. That is, if each branch of production either produces excess or less relative to the requirement, then the input-output configurations will break down. A formulation of growth based on departments or sectors can only refer to demand deficiency as arising from disproportions between these units. The deeper reason, as Luxemburg notes, pertains to the contradictory nature of accumulation and consumption in a capitalist economy (see also AC: 147, 155; cf. Kowalik 2014: 40-56).

[Marx’s scheme] does indeed permit of crises but only because of a lack of proportion within production, because of a defective social control over the productive process. It precludes, however, the deep and fundamental antagonism between the capacity to consume and the capacity to produce in a capitalist society, a conflict resulting from the very accumulation of capital which periodically bursts out in crises....
Given that aggregate output and aggregate demand have to be equal, growth occurs, if and only if, the increase in supply generated by the net capital accumulation is exactly validated by an increase in demand.

Luxemburg poses the dynamic Keynes question in different contexts trying to locate what might provide the source of additional demand in an economy with positive net capital accumulation. Her questions are simultaneously directed to sectoral and aggregate analysis.

From the point of view of reproduction the question is a different one. How is it possible that the unplanned supply in the market for labour and means of production, and the unplanned and incalculable changes in demand nevertheless provide adequate quantities and qualities of means of production, labour and opportunities for selling which the individual capitalist needs in order to make a sale? How can it be assured that every one of these factors increases in the right proportion?

...the desire to accumulate plus the technical prerequisites of accumulation is not enough in a capitalist economy of commodity production. A further condition is required to ensure that accumulation can in fact proceed and production expand: the effective demand for commodities must also increase. Where is this continually increasing demand to come from, which in Marx’s diagram forms the basis of reproduction on an ever rising scale?

...the question is: if, and in so far as, the capitalists do not themselves consume their products but ‘practise abstinence’, i.e. accumulate, for whose sake do they produce? Even less can the maintenance of an ever larger army of workers be the ultimate purpose of continuous accumulation of capital. From the capitalist’s point of view, the consumption of the workers is a consequence of accumulation, it is never its object or its condition, unless the principles (foundations) of capitalist production are to be turned upside down.

That is, in an economy where net accumulation is positive and workers are paid subsistence wages, where does the demand to consume the increased supply of commodities come from? ‘The question is rather where the demand can arise—to find an effective demand for the surplus value’ (AC: 164; cf. Sweezy 1942: 202-3; Trigg 2009: 38;

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99 It should be noted that the only necessary condition here is that workers are paid less than the value added.
Groenewegen 2013: 76). One possible answer, very supply-side in nature, is that ‘the natural increase of the population creates this growing demand’ (AC: 133). If so,

[The question is therefore whether the natural increase of the working class also entails a growing effective demand over and above the variable capital. And that is quite impossible. The only source of money for the working class ... is the variable capital which must therefore provide in advance for the natural increase of the workers.

(AC: 134)

In other words, the ‘extra demand’ cannot come from workers’ wages which are at subsistence levels and equal the variable capital (also see AC: 143) for it is always less than the value of the product they produce. The other possible route is via foreign trade (AC: 136); but by assumption and with respect to discovering general laws, foreign trade is not admissible. This is so because for a closed global economy (with trade flows between parts of this system) there can be no such source of demand. Luxemburg reiterates: ‘[t]his brings us back to the old question: How, and by whom, is the accumulated surplus value to be realised?’ (AC: 139).

Luxemburg identifies the various sources of this ‘extra demand’ present in the literature before proceeding to provide her solution; the classical economists Sismondi and Malthus find a mention.

A sure instinct that realisation of the surplus value requires ‘third persons’, that is to say consumers other than the immediate agents of capitalist production (i.e. workers and capitalists) led to all kinds of subterfuges: ‘unproductive consumption’ as presented by Malthus in the person of the feudal landowner, by Vorontsov in militarism, by Struve in the ‘liberal professions’ and other hangers-on of the capitalist class; or else foreign trade is brought into play which proved a useful safety valve to all those who regarded accumulation with scepticism, from Sismondi to Nicolayon.

(AC: 350-1)

Marx has not provided an answer (cf. AC: 165). Her solution, which she considers a ‘historical’ one as opposed to a ‘theoretical’ one, is that ‘there should be strata of buyers outside capitalist society’ (AC: 351). ‘Whatever the theoretical aspects, the accumulation of capital, as an historical process, depends in every respect upon non-capitalist social strata and forms of social organisation’ (AC: 366; also see 417).
In an open economy with a government, Luxemburg’s solution, logically speaking, points to a foreign trade surplus and/or net government spending. These two, together with capitalists’ consumption, are the components of Michał Kalecki’s theory of the realization of profits. The first, of course, has a problem of global coherence, since the balance of trade must be zero for the world as a whole. But this does not, perhaps, mean that the chase for trade surpluses is irrelevant to the level of global effective demand (see a similar point made in connection with the role of foreign demand in Smith in section 6.3).

In 1933, building on Luxemburg’s work, Kalecki presented his theory of activity levels, within the framework of a cycle (cf. Sawyer 1985: 148). At the same time, his is also an account of the realization of the surplus, or with Kalecki’s assumption regarding wages, realization of profits. Gross investment, capitalists’ consumption and workers’ consumption determine aggregate output. It is therefore Luxemburg who acts as the bridge between classical economists, Marx and Kalecki. Her work also reinforces the occurrence of crises as a permanent feature of capitalism, the reason being regular situations of aggregate demand deficiency.

11.3 Kalecki, Keynes and classical economics

Kalecki and Keynes independently discovered the principle of effective demand (cf. Pasinetti 1974: 35). From the detailed historical investigation presented in the previous chapters and summarised in section 11.1, it is clear that the problem of demand was extant in classical economics and in Marx. In this section, the principle of effective demand in Kalecki and Keynes will be succinctly articulated, and its connection with the circular flow in classical economics systematically addressed. Furthermore, the standpoint of Kalecki, Keynes and the classical economists and Marx on labour demand and supply will be assessed. It will be presently seen than the dynamic question of capacity and demand

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100 Sebastiani also notes the role of Luxemburg for Kalecki’s theoretical framework. ‘[F]or Kalecki, the approach to the theory of effective demand came about as a natural extension of his own cultural tradition. This continuity is reflected in several aspects of Kalecki’s work, where Marx’s influence worked mainly through Rosa Luxemburg’ (Sebastiani 1991: 268). Kowalik expresses this view more forcefully: ‘…Michal Kalecki’s (M.K.) theory is the best theoretical continuation and solution to the main problems that Rosa Luxemburg (R.L.) wanted to solve in her opus magnum’ (Kowalik 2009: 102; cf. Kowalik 2014: 4). It must also be pointed out that both Luxemburg and Kalecki contrasted their respective analysis with that of Tugan-Baranovsky, who draws on Marx’s framework and concludes that aggregate supply creates an equivalent aggregate demand (see AC: chapter 23 and Kalecki 1967).
growth is not posed by either Kalecki 1933 or Keynes 1936 (though Luxemburg did pose it); this will be taken up in the following (also the final) chapter. Kalecki does discuss the dynamic question in his later work on the theory of growth.

Aggregate income \((Y)\), in Kalecki, is decomposed into wages \((W)\) and profits \((P)\). As a first approximation, workers are assumed to spend their entire wages on consumption \((C_W)\). Capitalists’ consumption \((C_P)\) is a function of income and investment \((A)\) is autonomous with respect to income.

\[
Y = W + P
\]

\[
W = C_W
\]

\[
P = C_P + A
\]

\[
Y = C_W + C_P + A
\]

\[
W + P = C_W + C_P + A
\]

Since \(W = C_W\), we arrive at

\[
P = C_P + A
\]

In Kalecki’s formulation, capitalists’ consumption contains an autonomous component \((B_O)\), the portion of capitalists’ consumption that is independent of profits. It should be noted that the causation runs from right to left in equation (11.2). Moreover, when profits increase, the consumption that is induced by the profit increase does not rise in proportion (that is, \(0 < \lambda < 1\)).

\[
C_P = B_O + \lambda P
\]

Investment, in Kalecki, depends on autonomous consumption and gross accumulation (Kalecki 1933: 8-9). In other words, an increase in capitalist consumption and/or investment demand induces more investment. This is the accelerator idea, that investment is ultimately a derived demand and is not entirely autonomous of consumption. (This is taken up further in the next chapter.) Toporowski, in his biography of Kalecki, informs us that Kalecki mentions Albert Aftalion’s book *Les Crises périodiques de surproduction* as having influenced his theoretical work on activity levels (Toporowski 2013: 61; cf. Junankar
From 11.2 and 11.3,

\[ P = B_0 + \lambda P + A \]

\[ P = \left[ \frac{1}{1-\lambda} \right] \left[ B_0 + A \right] \]  

(11.4)

The algebra outlined above is a theory of activity levels as well as a theory of profit realization (cf. Kalecki 1933: 1-2 for a concise algebraic account). Capitalists will earn (normal) profits only if adequate aggregate demand (consumption and investment demand) is forthcoming. The first term in equation (11.4) is the profit multiplier. For any given \( B_0 + A \), an increase in the marginal propensity to consume by capitalists (\( \lambda \)) will increase aggregate demand and consequently raise profits and activity levels. Alternatively, profits and activity levels increase if there is an increase in autonomous consumption and/or investment for any given marginal propensity to consume.

Does Kalecki (1933) encompass a theory of value? No, it does not. A theory of value is necessary so that long-run prices (which subsequently enable short-run prices to be determined) and the general rate of profit can be determined. While aggregate money profits and output are determined by the principle of effective demand in Kalecki, commodity prices are determined through mark-ups (see also the discussion in Sawyer 1985: 160 on the ‘proximate cause of profits’ in Kalecki).\(^{101}\) Hence, Kalecki’s theory of prices and general rate of profit does not fall within the classical tradition (cf. Eatwell 1983: 124-5). Let the mark-up, \( m = (P/W) \). The profit share can then be written as:

\[ \frac{P}{Y} = \frac{P}{P+W} = \frac{P}{W}/[(P/W)+1] = \frac{m}{1+m} \]  

(11.5)

\[ P = \left[ \frac{m}{1+m} \right] Y \]  

(11.6)

Equating (11.4) and (11.6), we get

\(^{101}\) A similar line of reasoning is to be found in the Treatise on Money published in 1930, wherein Keynes, while distinguishing saving from investment, argues that the difference between the two would be eliminated via changes in the prices of investment goods and/or consumption goods which would subsequently affect profits (Moggridge 1973: 339). The members of the ‘Cambridge Circus’ – Richard Kahn, James Meade, Austin Robinson, Joan Robinson and Piero Sraffa – deserve credit for repeatedly pointing out to Keynes that he had focused only variations in price and excluded variation in output in the Treatise (Rotheim 1981: 572; also see Moggridge 1992: 532-5).
\[
\frac{m}{1+m} Y = \frac{1}{1-\lambda} [B_0 + A]
\]
\[
Y = \frac{1+1/m}{m(1-\lambda)} [B_0 + A]
\]  

The mark-up assumption renders Kalecki’s theory of the rate of profit (and value) unsatisfactory (cf. Aspromourgos 2013: 17-20). It is unsatisfactory because, in general, the costs which are marked up to determine prices in the Kaleckian framework are not themselves independent of prices (cf. Steedman 1992).

When capitalists’ consumption increases, the production of consumption goods for capitalists expands which generates a rise in employment of labour in the consumption goods sector. Further, this additional employment of labour causes an increase in production of consumer goods for workers. Together, they lead to a rise in the aggregate output and employment levels. ‘Capitalists as a class gain exactly as much as they invest or consume’ (Kalecki 1933: 12). And if they neither invested nor consumed, they would not make any profits. To put the question differently, what fills the gap between the value of output and real wages in Kalecki? His answer is: gross accumulation and capitalists’ consumption.\(^{102}\)

This gap between wages and output, and the filling of this gap in Marx, Luxemburg and Kalecki is closely analogous to Keynes’s saving gap. [They would be analytically equivalent if capitalists’ consumption is zero.] In Keynes’s theory, for any hypothetical increase in income, the associated increase in aggregate output will not be validated by the increased aggregate demand unless something else fills the gap between the change in income and change in consumption – as shown in the diagram below. This ‘something else’ is investment in Keynes’s framework, as expounded in The General Theory of Employment, Interest and Money (1936). This diagram although not in Keynes (nor is the algebra which follows it) is representative of his principle of effective demand (cf. Keynes 1936: 27-8; 98).

\(^{102}\) ‘The conclusion that the increase in capitalists’ consumption increases in turn their profits, contradicts the common conviction that the more is consumed the less is saved. This approach, which is correct with regard to a single capitalist, does not apply to the capitalist class as a whole’ (Kalecki 1933: 12) because the ‘[i]nvestment or consumption of some capitalists creates profits for others’ (ibid).
As Keynes observes in the final chapter (chapter 24 titled ‘Concluding Notes on the Social Philosophy towards which the General Theory might Lead’): ‘the growth of wealth, so far from being dependent on the abstinence of the rich, as is commonly supposed, is more likely to be impeded by it’ (Keynes 1936: 372). Aggregate demand, according to Keynes, ‘can be derived only from present consumption or from present provision for future consumption’ (Keynes 1936: 104). This is essentially the Kalecki proposition (see equation (11.2)) that capitalists’ consumption and accumulation determine activity levels and profits or more generally, the dependence of accumulation on consumption demand (growth).

According to Keynes, consumption depends on the level of aggregate output and employment given the society’s propensity to consume (Keynes 1936: 28). Aggregate consumption expenditure is ‘unambiguously defined’ as the difference between ‘the total sales made during the period’ and ‘the total sales made by one entrepreneur to another’ (Keynes 1936: 62). In other words, it is the difference between the value of aggregate output and investment during a given period of time. Chapters 8–10 of The General Theory are devoted to explaining the factors affecting aggregate consumption expenditure particularly the ‘propensity to consume’. Keynes divides the factors into three: (1) level of income; (2) ‘other objective attendant circumstances’; and (3) ‘the subjective needs and the psychological propensities and habits of the individuals’ in the community (Keynes 1936: 90-1). Broadly, the second and third factors together determine autonomous consumption and the first factor (in conjunction with the propensity to consume) determines induced consumption. Of particular importance is one of the items listed by
Keynes under the second factor – the consumption of the wealth-owning class – because alterations in the value of their wealth can cause variations in aggregate consumption independent of the level of income.

Aggregate output is determined by aggregate demand, exclusively constituted by consumption and investment demand in a closed economy without government. Keynes’s principle of effective demand can be formulated in a very simple manner as follows. It is assumed that there are underutilized resources or excess capacity in this economy. The macroeconomic equilibrium condition is that planned aggregate monetary expenditure \((AD)\) must equal the monetary value of aggregate output \((Y)\): \(Y = AD\). The proceeds from the sale of aggregate output is equal to the national or aggregate income.

\[
AD = C + I
\]

\[
C = C_0 + cY
\]

\[
I = \bar{I}
\]

The consumption \((C)\) and investment \((I)\) demands make up the aggregate demand. Consumption demand contains an autonomous component \((C_0)\) and an induced one, the latter dependent on aggregate income and the marginal propensity to consume \((c)\) which is assumed to lie between zero and one. Investment is autonomous and given. Since, in equilibrium, \(Y = AD\),

\[
Y = C_0 + cY + \bar{I}
\]

\[
Y = \frac{1}{1 - c}[C_0 + \bar{I}]
\]  

(11.8)

Activity levels, in Keynes, are determined by autonomous demands and the multiplier \((1/(1 - c))\) reflecting the demand induced by them. The greater the propensity to consume, the larger is the multiplier and consequently the higher the activity levels for given autonomous demands. When the economy is in equilibrium, the aggregate demand and aggregate supply of commodities do equilibrate but labour demand and labour supply do not, except by fluke. Keynes’s theory therefore also points out that there are no persistent forces in a competitive economy which result in the full-employment of labour (see the chapters by Garegnani and Eatwell assembled in Eatwell & Milgate 1983).
Aggregate demand determines aggregate supply. This entails that investment determines saving as shown below.

\[ S = Y - C \]
\[ S = Y - C_o - cY \]
\[ S = -C_o + (1 - c)Y \]  
(11.9)

Substituting (11.8) into (11.9), we get \( S = \bar{I} \). In equilibrium, aggregate supply and demand are equal and so are planned saving and investment. Since decisions to save and invest are in general undertaken by different sets of people, what mechanisms ensure the equality between saving and planned investment? According to Keynes, it is activity levels which act as the equilibrator. The theoretical and practical insight Keynes provides is the following: ‘the level of income must be the factor which brings the amount saved to equality with the amount invested’ (Keynes 1936: 179). Furthermore, he points out that full employment is a special case and not a general one, which can exist only ‘by accident or design’ (Keynes 1936: 28). The equality between full-employment planned saving and planned investment is a fluke. This is because, at the full employment position, investment has to exactly equal the volume of full-employment saving (income minus consumption) generated by the income arising from production. When the volume of investment exceeds the full-employment level of saving, inflation occurs and there is disequilibrium between planned saving and planned investment (Keynes terms this ‘a state of true inflation’ (Keynes 1936: 118-9)). The other disequilibrium situation, and the more common one, in Keynes’s view, is when full-employment planned saving exceeds planned investment. As Keynes phrases it: 

...employment can only increase pari passu with an increase in investment; unless, indeed, there is a change in the propensity to consume. For since consumers will spend less than the increase in aggregate supply price when employment is increased, the increased employment will prove unprofitable unless there is an increase in investment to fill the gap.

(Keynes 1936: 98)

The resultant equilibrium is one which is characterised by unemployment of labour (with unutilized and under-utilized capacity, at least in the short run) (cf. Garegnani 1979: 68;
Milgate 1982: 78). That gap, Keynes suggests, is filled by investment demand (cf. Bleaney 1976: 223). As Kahn also notes, investment ‘is the constituent of Effective Demand which is mainly responsible for fluctuations, and also for demand being often chronically unduly low – as well as, on occasion, unduly high’ (Kahn 1984: 142). This is also the Marx point. In Kalecki as well, it is the fluctuations in investment based on ‘changes in profitability and economic activity’ which drive the fluctuations in aggregate demand and therefore activity and employment levels (Sawyer 1985: 154; also see Vianello 1989: 165 on this issue in Marx and Kalecki).

How did Keynes arrive at the principle of effective demand? His economics was thoroughly influenced by Alfred Marshall, and it is only in his 1932 lectures that Keynes starts to develop the principle of effective demand (Clarke 1988: 260-3). In his 1932 lectures entitled ‘The Monetary Theory of Production’, Keynes noted that aggregate supply depend on profits, which in turn depend upon aggregate demand (Clarke 1988: 265; cf. Rymes 1989: 47-84; see also Moggridge 2009: 562 who argues that the principle of effective demand appears clearly in Keynes only from the autumn of 1933). That is, aggregate supply adapts to aggregate demand via changes in aggregate income. There are references to Marx in Keynes’s lectures and in the General Theory (Keynes 1936: 3n, 32) and a biographical essay on Malthus (Keynes 1933), wherein Ricardo is severely criticised for assuming Say’s law. The references to Marx, especially his general formula for capital, are found in the lecture notes published in Rymes (Rymes 1989: 93-5; cf. Moggridge 1973: 420; Dillard 1991: 209-10; Sardoni 1991: 231); Keynes delivered this lecture on 23 October 1933 during the Michaelmas Term. Despite these notable references to Malthus and Marx, Keynes’s economics is in no way classical or Marxian, and despite the strong Marshallian influence, Keynes’s economics is distinct from it as well. However, Kalecki’s economics is based on Marx (Lopez & Assous 2010: 1) and was inspired by Luxemburg (see Kalecki 1967; 103 Consumption is relatively passive compared to investment which Keynes treats as the main driver in his theory (cf. Bleaney 1983: 221; Sawyer 1985: 185-6 points out that both Kalecki and Keynes viewed investment as the more active variable).

104 As early as 1931, in Unemployment as a World Problem, Keynes writes that investment ‘is, in fact, the element in the economic situation which is capable of sudden and violent change. ... And nothing, obviously, can restore employment which does not first restore business profits. Yet nothing, in my judgment, can restore business profits which does not first restore the volume of investment...’ (Keynes 1931: 354-5).
Kalecki (in 1933) and Keynes (in 1936) independently discovered the principle of effective demand. This simultaneous discovery is all the more interesting given their very distinct and different intellectual backgrounds. As Sawyer puts it: ‘...Kalecki should ... be seen as operating within the classical or Ricardian-Marxian approach to economics, whereas Keynes can be seen as firmly within the Marshallian tradition and more generally within the neo-classical [marginalist] tradition even though he became critical of aspects of that approach...’ (Sawyer 1985: 184; also see 185). As noted earlier, the theory of value and distribution in Kalecki does not fall within the Classical/Marxian approach to economics. Kates argues, although unconvincingly, that Keynes’s principle of effective demand as found in the *General Theory* was due to him reading the Malthus-Ricardo correspondence in late 1932 (Kates 1994); it is unconvincing because Keynes had already, in 1932, noted that aggregate demand determines aggregate supply through variations in aggregate income. O’Leary (1942) advances an interpretation that places Malthus as a significant forerunner of Keynes and of Keynes being influenced by Malthus’s ideas. Kalecki’s principle of effective demand grows out of the classical tradition, by way of contrast with the path Keynes took to arrive at essentially the same core theory. Patinkin disagrees with the view that Kalecki and Keynes possess the same core theory. According to Patinkin, the core message in Kalecki (1933) is not about aggregate demand determining activity levels but about ‘the cyclical behavior of investment on the implicit assumption that there always exists equality between planned savings and investment’ (Patinkin 1989: 40). It is true that investment demand plays a crucial role in Kalecki, but it is the variability of investment demand which consequently determines aggregate profits, incomes and employment, and planned saving is brought into equilibrium with planned investment due to variations in aggregate profits. As the previous two sections demonstrate, the Marx-Luxemburg-Kalecki sequence shows how the issue of effective demand grew out of the classical approach—“organically”, so to speak —without needing the assistance of Keynes.

Marx recognises the mutual causation between aggregate demand and aggregate supply (*TSV I*: 273; cf. section 10.4). Kalecki and Keynes have the same two-way causation
but unlike Marx, solve it for a determinate aggregate output (say $Q$), and in such a way that demand is the autonomous factor. The essence of the principle of effective demand of Kalecki and Keynes can be set out as follows. Suppose $C = cQ$ and $I = I_P$, then $Q = cQ + I_P$; that is $Q = [1/(1-c)] I_P$. Consumption demand is determined by aggregate output (identically equal to aggregate income); at the same time, aggregate supply adapts to aggregate demand with investment demand and the marginal propensity to consume being the ultimate determinants. Aggregate income, in turn, is determined by aggregate supply and realized in sale (cf. Kenway 1980: 151). This is the Kalecki and Keynes step beyond Marx.

The idea (very clear in Kalecki and Keynes) that investment, insofar as it is a demand for additional production capacity, ultimately cannot be autonomous with respect to consumption demand, points to the implausibility of the apparent autonomy of accumulation in Smith and Ricardo. This is the deeper implication of the following extract from Keynes.

Consumption ... is the sole end and object of all economic activity. Opportunities for employment are necessarily limited by the extent of aggregate demand. Aggregate demand can be derived only from present consumption or from present provision for future consumption. The consumption for which we can profitably provide in advance cannot be pushed indefinitely into the future.... The obstacle to a clear understanding is ... an inadequate appreciation of the fact that capital is not a self-subsistent entity existing apart from consumption.

(Keynes 1936: 104, 106)

Sismondi, Malthus and Marx noted problems with the crypto-supply-side growth story in classical economics (especially in Smith and Ricardo). Classical economists, in particular, Quesnay and Turgot, noted that leakages from the circular flow tend to reduce activity levels. The main vehicle of saving in their writings, and also in Marx, is hoarding. But

---

105 It is true that Malthus did possess something like an accelerator idea, even if in a very rudimentary way (Hollander 1962: 359; also noted in section 11.1).
106 Hoarding, as Marx noted, refers to selling without buying, and keeping the money in a hoard. This is rightly considered by Quesnay, Turgot, and Marx particularly as detrimental to activity levels and economic growth. Keynes makes the same point when he writes that there cannot be a buyer without a seller or a seller without a buyer.... it makes nonsense to neglect it when we come to aggregate demand. This is the vital difference between the theory of the economic behaviour of the aggregate and the theory of the behaviour of the individual unit, in which we assume that changes in the individual’s own demand do not affect his income.
(Keynes 1936: 85)
leakages do not affect the economics of Smith and Ricardo due to their very special assumption of planned saving and planned investment being the same thing. Marx, through the general formula of capital and the associated issue of realization of the surplus, points to the significance of aggregate demand and more importantly, that it is aggregate demand which determines aggregate supply. This is exactly the opposite of what marginalist economics suggests: aggregate demand adapts to aggregate supply and planned investment adapts to planned saving via a sufficiently sensitive interest rate (and in a general equilibrium, through the flexibility of both commodity and factor prices). In classical economics, there is a very long run tendency for labour supply to adapt to labour demand via the population mechanism. But this tendency is not to be found in Marx. In Kalecki and Keynes, there are no mechanisms which ensure the equilibrium between labour supply and labour demand. In contrast, marginalist economics suggests that labour demand adapts to labour supply, such that labour tends to be fully employed. But note that this claim is not made in the ‘neoclassical-Keynesian synthesis’.

11.4 Conclusion: demand-led growth

The problem of insufficient demand was not just implicit in classical economics but was explicitly addressed through the concept of the leakages from the circular flow in Quesnay and Turgot, the extent of the market in Smith, the role of aggregate demand as determining aggregate supply in Ricardo and the pronounced arguments against Say’s law present in Sismondi, Malthus and Marx. However, there is an absence of an analysis of saving and investment equilibration in classical economics and Marx. Luxemburg, drawing on Marx, posed the demand sufficiency question more clearly. In 1933, Kalecki,

Also see the discussion in Fan-Hung (1939: 31) where he notes the similarity between the issue of surplus realization in Marx and the principle of effective demand in Keynes. Keynes (incorrectly, as per the definition of classical economics employed in this thesis) posits that the classical theory of the rate of interest ‘regarded the rate of interest as the factor which brings the demand for investment and the willingness to save into equilibrium with one another’ (Keynes 1936: 175). Actually, Keynes is here referring to the marginalist theory of the rate of interest (cf. Garegnani 1978: 339, 342-4). Corry (1959: 720-2) incorrectly ascribes such a theory of interest to classical economics, in particular, to Malthus; but he is correct in arguing that Malthus, as Smith and Ricardo, treated planned saving as one and the same as planned investment. The similarity with respect to the general presence of unemployment in Marx and Keynes is noted also by Alexander (1940: 125). It is for this reason that Milgate (1983: 101) mentions that ‘the theory of output and employment ... is missing from the work of the old Classical writers.’
building on Marx’s framework articulates the principle of effective demand. It is therefore Luxemburg who acts as the bridge between classical economics, Marx and Kalecki. And the sequence Marx-Luxemburg-Kalecki suggests that the problem of effective demand organically grew out of classical economics, without needing the assistance of Keynes. One qualification is required here. Luxemburg’s insistence on the essential role of non-capitalist demand (a ‘historical’ solution as opposed to a ‘theoretical’ one) was not shared by Marx or Kalecki (cf. Lopez & Assous 2010: 195).

Kalecki articulates the principle of effective demand in the context of a cycle wherein capacity growth is ruled out by assumption; changes in investment only affect the utilization of capacity. In Keynes too, capacity is taken as given and the analysis of investment is in connection with changes in capacity utilization (Keynes 1936: 245; cf. Kahn 1984: 123; Dillard 1991: 213; also see the letter to editors sent by Garegnani published as a footnote at Eatwell & Milgate 1983: ii). That is, what we termed the dynamic Keynes question is neither posed nor tackled by Kalecki 1933 or Keynes 1936. The dynamic Keynes question is this: what ensures that the growth in demand is such that it is sufficient and just sufficient to validate the growth in capacity? The following chapter develops a simple growth model which addresses this dynamic Keynes question in a framework which marries the economics of classical economists, Marx and the principle of effective demand (cf. Kurz 1985 who develops the theory of activity levels in a multisectoral model based on the classical theory of value and distribution and the principle of effective demand). The revival of the classical theory of value by Piero Sraffa in 1960 and the successive modifications in integrating the Keynesian principle of effective demand with the classical theory of value, notably by Pierangelo Garegnani (thereby ridding Keynes’s overall economics of capital-theoretic problems), forms the basis of the growth theory presented in the next chapter.
CHAPTER 12

Consumption and Demand-Led Growth

The sequence, Marx-Luxemburg-Kalecki, detailed in the previous chapter, shows that the problem of effective demand grew out of classical economics and independent of Keynes. The analytical coherence given to the classical theory of value by Sraffa in his *Production of Commodities by Means of Commodities* and the principle of effective demand developed by Keynes (and Kalecki) is fruitfully synthesised and the initial path outlined, most notably by Garegnani (1978, 1979, 1992; also see the chapters contained in Eatwell & Milgate 1983). This chapter develops one such growth model built on the classical theory of value and the principle of effective demand in order to make transparent the role played by consumption in determining activity levels and economic growth.

In section 12.1, a simple model of growth, inspired by Serrano (1995) and closely following Smith (2012), is set out which clarifies the distinctive roles played by capacity-creating and non-capacity-creating expenditure in a framework within which growth is demand led. Section 12.2 outlines the various routes through which the growth in autonomous consumption generates economic growth. Finally, section 12.3 brings together various suggestions made by the classical economists and Marx and points out the affinities between classical economics and the nature of demand-led growth.

**12.1 A simple growth model**

Following Serrano (1995), and in line with the simple Kaleckian/Keynesian model presented in the previous chapter, we assume an economy with no government, no foreign trade, no technological progress and constant returns to scale in production. Additionally, all capital is circulating. The model does not incorporate fixed capital as in Smith to keep the model simple and in order to focus on autonomous consumption. There are no scarce natural resources and labour is in abundant supply; that is, supply constraints are not binding. And consistent with Sraffa’s formulation of the classical theory of value, one of the distributive variables, the real wage or the rate of profit is exogenously given. The growth of the economy can affect income distribution or normal prices but they are to be determined at a different stage of analysis. Garegnani explains this character of classical economics in the following excerpt.
The surplus theories have, so to speak, a core which is isolated from the rest of the analysis because the wage, the social product and the technical conditions of production appear there as already determined. It is in this ‘core’ that we find the determination of the shares other than wages as a residual.

An important point to notice is that the treatment of the real wage, the social product and the technical conditions of production as independent variables in the ‘core’ in no way entailed denying the existence of influences of any single one of these three sets of variables over the remaining two.

(Garegnani 1984: 296)

This analytical separability between the theory of value and distribution and the theory of activity levels and growth is a characteristic feature of classical economics. However, contingent interactions can occur; for instance, between economic growth and workers’ bargaining power and consequently the distributive variables are affected. Investment generates the corresponding amount of saving through variations in activity levels and not by changes in income distribution (cf. Garegnani 1992; Garegnani & Palumbo 1998). Moreover, there is a uniform rate of profit on capital advanced owing to free competition. Activity and employment levels are determined by the principle of effective demand as in Kalecki and Keynes. To reiterate, the level of investment is independent of the community’s propensity to save. But what is it that determines growth? Furthermore, what is the answer to the ‘dynamic’ Keynes question? And, a sound answer to the first question is a prerequisite for properly addressing the second.

Cantillon’s distinction between necessaries and non-necessaries (mainly, luxuries) finds a more mature treatment in Smith by way of his distinction between productive and unproductive labour (see sections 2.3 and 6.1 respectively). This distinction is to be found in Ricardo, Sismondi and Malthus. Marx’s analytical apparatus is made up of two departments, one producing consumption goods and the other investment goods. Luxemburg draws on the same sectoral framework as Marx. Both Kalecki and Keynes capture the essence of the distinction through their decomposition of expenditure into consumption and investment. It is important, however, to distinguish between capacity-creating expenditures and non-capacity creating expenditures – this is the analytically coherent formulation of the productive-unproductive labour distinction (see section 11.1). Expenditure on luxuries/unproductive labour does not create capacity whereas expenditure on necessaries/productive labour does create capacity.
In our simple demand-led growth model, the only component of aggregate demand that creates capacity is induced investment \((I)\). Induced consumption is given by the multiple of the real wage \((w)\), the labour coefficient \((l)\) and gross income/output \((Y)\). Autonomous consumption \((C)\) is non-capacity creating expenditure and is autonomous of output levels.\(^{110}\) This implies that the consumption of the recipients of non-wage income is independent of their income, and the plausibility of this rests on their incomes being so high that they do not condition their consumption decisions. It also implies that wage earners receive only wage income which is assumed to be spent entirely on consumption. Wage-earners are also assumed not to be able to incur debt in order to spend more than their current income. Aggregate demand is the sum of autonomous consumption, induced consumption and induced investment.

\[
AD = C + wlY + I \tag{12.1}
\]

In equilibrium, the level of output \((Y)\) is determined by the level of aggregate demand.

\[
Y = AD \tag{12.2}
\]

From (12.1) and (12.2), we get

\[
Y = [C + I][1/(1-wl)] \tag{12.3}
\]

The level of gross output is a multiple of autonomous consumption and gross investment. The causation runs from aggregate demand to aggregate supply. This formulation is analytically the same as that in Kalecki and Keynes (section 11.3). The marginal propensity to consume is \(wl\), equal to the share of wages in gross income. The higher the marginal propensity to consume, the greater is the multiplier. Equation (12.3) also vindicates the classical economists’ and Marx’s attempt at demonstrating the primacy of demand in the determination of activity and employment levels (summarised in section 11.1).

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\(^{110}\) Other candidates for autonomous demand are autonomous investment, elements of government expenditure and exports. Serrano’s (1995: 71, fn) non-capacity-creating autonomous investment such as ‘consultancy services, research & development, publicity, executive jets’ are not considered in our formulation. This alteration does not affect the conclusions of the model, and is done in order to concentrate on consumption, the central focus of the thesis.
To obtain economically meaningful solutions for equation (12.3), two conditions need to be satisfied (Serrano 1995: 75-6). First, the marginal propensity to consume should be less than one. Since \( w_l \) is the share of wages in gross income, so long as the share of profits is positive, \( w_l \) being less than one is assured. Second, the sum of autonomous consumption and gross investment must be a positive magnitude. (As a matter of fact, the supposition of an element of demand autonomous with respect to current activity levels is the crucial element of demand-side approaches.) Adopting the terminology adopted in the thesis, this is equivalent to saying that the gap between the value of aggregate output and the aggregate real wages in this simple model is filled by autonomous consumption and induced investment.

Induced investment is a component of current aggregate demand and also creates capacity in the following time period. This is the ‘dual character of investment’ (Serrano 1995: 76; this dual character of investment was first explicitly formalised in Harrod 1939). Other things remaining the same, the increase in gross output in \( t+1 \) generated by the capacity-creating gross investment must find sufficient aggregate demand in \( t+1 \) from an increase in autonomous consumption and/or induced investment. To put it more generally, capital accumulation cannot be treated as independent of consumption due to its capacity creating effects; this is also the Kalecki and Keynes point (see section 11.3).\(^{111}\) In fact, this is the accelerator idea (cf. Serrano 1995: 77, 2n; Smith 2012: 547). That is, induced investment depends on how much of productive capacity requires to be installed in order to produce the level of output to satisfy the expected demand (\( Y_e \)) in the following time period.

\[ I = k^d(Y_e - Y) \]  \hspace{1cm} (12.4)

Based on the expected aggregate demand and given technology (represented by \( k^d \), the capital-output ratio when capacity is normally utilized), the entrepreneurs and firms decide how much to invest in the current period. Following Smith (2012), we account for capacity utilization explicitly under the capital-output ratio.

---

\(^{111}\) Although both Kalecki (1933) and Keynes (1936) recognise the capacity creating effects of investment, they do not formally treat it because their object of inquiry is not economic growth but the determination of activity levels (esp. see section 11.4).
The actual capital-output ratio \( k \) can be expressed as a multiple of the capital-output ratio when capacity is fully utilized \( (K/Y) \), where \( Y^* \) represents full-capacity output) and the inverse of the ratio of actual output to full-capacity output. The ratio of actual output to full-capacity output is denoted by \( u \) and the capital-output ratio when capacity is fully utilized by \( a \).

When capacity utilization is at its normal or desired level, we denote it by \( u^n (=Y^d/Y^*) \) and the desired capital-output ratio \( k^d=(K/Y^*)(Y^*/Y^d) \) is given by \( a/u^n \). If productive capacity is being utilized at a normal rate, then, along the growth path, entrepreneurs correctly foresee the evolution of demands for their commodities (at the sectoral and inter-sectoral level) and therefore have no reason to deviate from their planned degree of capacity utilization. Therefore, if firms correctly anticipate the future evolution of demand, capacity utilization will be at its normal or desired rates. Consequently, induced investment will be \( k^d(Y^e-Y) \) as indicated by the expression in equation (12.4). Also, the expected rate of growth \( (g^e) \) will equal the actual rate of growth \( (g) \); this is a necessary consequence of assuming normal capacity utilization as in Serrano (1995: 85). This assumption cannot be admitted in a demand-led growth model where parts of aggregate demand are autonomous. This has been criticised, and rightly so, by Trezzini (1998), Palumbo & Trezzini (2003) and more recently by Smith (2012: 550-1). The long-period variability of capacity utilization is present also in Ciccone (1986), Garegnani (1992) and Garegnani & Palumbo (1998); however, for Vianello (1985: 72-3), in the long-period, the variations in activity levels occur through changes in the productive capacity alone and not through variations in capacity utilization. White (2006: 162-5) and Aspromourgos (2013: 27) also point out the implausibility of capacity utilization continuously being at their normal rates when growth is demand-led.

Furthermore, the simplifying assumption of the perfect foresight of entrepreneurs and firms sits rather uncomfortably with the presence of autonomous elements of demand. The element of autonomy implies that these demands cannot ever be perfectly forecasted or anticipated because of the wider social and political factors that influence them which make their \textit{a priori} specification impossible. This also applies to the multiplier
in the model to the extent that the wage share is subject to shifts as well. The adjustment of capacity to demand will then take place via changes in the utilization of capacity and hence we have no reason to expect capacity utilization rates to tend to normal even on average (cf. esp. Palumbo & Trezzini 2003; White 2006; Smith 2012). In attempting to adapt their capacity utilization to their normal rates, entrepreneurs and firms are induced to vary the utilization of their capacity. Further, supposing that the deviation of average capacity utilization \( u^n \) from normal rates of capacity utilization is systematic, as Smith (2012: 553) does, induced investment now becomes

\[
I = k^d(Y^e - Y) + (k^d - k^a)Y
\]

(12.6)

where \( k^a \) refers to the capital-output ratio where capacity utilization is at its average rate. The second term in equation (12.6) describes the investment induced by systematic deviations in the average capacity utilization from its desired rate. This conceptualisation in Smith (2012) is an advance over Serrano (1995) due to the more satisfactory treatment of capacity utilization in a demand-led growth framework. In Serrano (1995) induced investment is determined as in equation (12.4) with capacity utilization at its desired rate (indicated by \( k^d \), the capital-output ratio when capacity utilization is at its desired or normal rate).

Under the assumption of normal capacity utilization, the growth equation can be determined by substituting equation (12.4) in (12.3), replacing \( (Y^e - Y)/Y \) with \( g \) and rearranging, we get

\[
g = \frac{[1 - w/l - (C/Y)]}{k^d}
\]

(12.7)

or in terms of the marginal propensity to save \( s=(1-w/l) \),

\[
g = \frac{s - (C/Y)}{k^d}
\]

(12.8)

The rate of growth is maximised when autonomous consumption equals zero and consequently \( g=s/k^d \). That is, growth is positively associated with the marginal propensity to save and a growth in autonomous consumption (or more broadly, in autonomous demands) does not play any significant role. Such a restriction is unwarranted and even contrary to a growth model built on the principle of effective demand where investment,
via the multiplier and accelerator, creates income and generates an equivalent amount of saving. In the present context, autonomous consumption and induced investment together create income and generate the appropriate level of saving. Hence, as Smith rightly observes: ‘[i]f demand is truly autonomous there appears to be no logical reason why its growth should be so bound by capacity saving’ (Smith 2012: 549). By ‘capacity saving’, Smith refers to ‘the level of saving generated from income when output is produced at the normal utilisation of capacity’ (Smith 2012: 548-9).

Incorporating equation (12.6) into equations (12.1) and (12.2), we get

\[ Y = C + k_d(Y^e - Y) + (k_d - k_a)Y + wIY \]  \hspace{1cm} (12.9)

Dividing throughout by \( Y \), replacing \((Y^e - Y)/Y\) with \( g^e \) and rearranging, we arrive at the solution for activity levels:

\[ Y = C/[1-wI-(k_d)g^e-(k_d-k_a)] \]  \hspace{1cm} (12.10)

The value of the supermultiplier\(^{112}\) (‘super’ because it incorporates both multiplier and accelerator effects),

\[ 1/[1-wI-(k_d)g^e-(k_d-k_a)] \]  \hspace{1cm} (12.11)

depends on the real wage, the technology, the desired/normal utilization of capacity, the average of past capacity utilization and the expected growth in output (\( g^e \)). The equilibrium output is determined by autonomous consumption and the parameters which make up the supermultiplier. Saving adapts to autonomous consumption and induced investment via changes in equilibrium output \( Y \) (see Smith 2012: 554, n. 12). Equivalently, aggregate supply adapts to aggregate demand. With perfect foresight no longer assumed to prevail, the expected growth in demand (and output) (\( g^e \)) will not be equal to the actual growth in output (\( g \)). And the average utilization of capacity will be endogenously determined (\( u^a=aY/K \)) and need not be at its desired/normal rate.

\(^{112}\) The ‘super-multiplier’ was introduced by J. R. Hicks in 1950, the essence of which had been anticipated by Josef Steindl (King 2008).
In order to arrive at an equation for growth, following Smith (2012: 555-6), we denote the supermultiplier by \( m \) and then equilibrium output in the current period is given by

\[
Y_t = C_t m_t
\]

(12.12)

and equilibrium output in the previous period by

\[
Y_{t-1} = C_{t-1} m_{t-1}
\]

(12.13)

Growth in output is then

\[
g^y = \frac{Y_t - Y_{t-1}}{Y_{t-1}}
\]

(12.14)

Hence,

\[
g^y = \frac{(C_t m_t - C_{t-1} m_{t-1})}{C_{t-1} m_{t-1}}
\]

(12.15)

Employing equation (12.7) and rearranging, we get

\[
g^y = g^c + \Delta m \left( \frac{C_t}{C_{t-1}} \right)
\]

(12.16)

where \( g^c \) is the growth rate of autonomous consumption \( (C_t / C_{t-1}) \) and \( \Delta m \) is the change in the supermultiplier \( (m_t / m_{t-1}) \). [It is to be noted that the growth equation derived in (12.16) is not consistent with steady-state growth where the change in the supermultiplier has no role to play.] The growth rate of autonomous consumption and the change in the value of supermultiplier determine the rate of growth of output. In the event that the parameters determining the supermultiplier do not change over time, growth is entirely determined by the growth in autonomous consumption (which is positive when \( (C_t / C_{t-1}) > 0 \)). There are no forces by which labour is fully employed when aggregate supply completely adapts to aggregate demand. In this framework, employment of labour grows when the economy grows. However, a change in technology affects the capital-output ratio and the labour requirement which cause variations in the supermultiplier thereby generating changes in the output and employment growth (cf. Cesaratto et al. 2003: 46). Nothing can be said \textit{a priori} about the direction of growth in employment of labour as it is also contingent on the precise nature of technological progress (also see Smith 2012: 565-
on the contingent nature of the link between technological progress and economic growth).

The simple model of growth presented in this section captures the autonomy of demand present in classical economics (more on this in section 12.3), and is consistent with Sraffa’s analytically coherent formulation of the classical theory of value and the principle of effective demand in Kalecki and Keynes. Normal prices are determined if the value of one distributive variable is given along with the dominant methods of production. Technical change in general causes a more or less slow change in the dominant techniques of production and therefore a change in normal prices. And if economic growth and technical progress cause a change in the real wage or the rate of profit, then this too will cause a change in normal prices. No quantitative mechanism can be established for such relations, and as pointed out in the first paragraph of section 12.1, they are studied at a different level of analysis (more macrohistorical than macrotheoretical, so to speak). Also, depending on the autonomous expenditures and the parameters which make up the supermultiplier and the feedback effects they have on each other, the rate of growth can vary. Therefore, there is no reason to expect steady growth as a general outcome (cf. Aspromourgos 2013: 27-8).

12.2 Growth through autonomous consumption

The role of autonomous consumption in economic growth is very clear from the simple growth model outlined in the previous section. Autonomous elements of demand, by definition, are independent of output/income and capacity. As early as 1755, Cantillon noted the role landowners’ consumption plays in the determination of activity levels and employment when land constraints are not binding (section 2.3). In Quesnay too, the changes in the propensity to consume of the landowners affect activity and employment levels (section 3.4). This is possible due to the landowners’ having a positive saving rate, the varying of which enables autonomous changes in their propensity to consume. A rise in landowners’ consumption can induce an increase in workers’ consumption. Partly, this phenomenon may be explained by emulation, where workers imitate the consumption of the capitalists and the landowners. (If workers are able to secure an increase in real wages
through bargaining, the rise in real wages will be permanent – a phenomenon described as the ‘hysteresis of the real wage’ earlier in the thesis.) This account of taste formation and imitation found in Cantillon and Steuart is evocative of Duesenberry’s relative consumption hypothesis (see below).

This is a process whereby a rise in autonomous consumption raises the real wage per worker and consequently generates an increase in induced consumption via a higher supermultiplier; together they raise the pace of economic growth as indicated by equation (12.16). But even if the real wage is unchanged, induced consumption still increases. Another route which generates sustained growth is through the asymmetric behaviour of the marginal propensity to consume in upturns and downturns (see Garegnani & Trezzini 2010) which reinforces the idea that any autonomous variation in the marginal propensity to consume affects economic growth.

The evolution of autonomous consumption is subject to a variety of social and political factors thereby rendering it unamenable to simple formalising (cf. Serrano 1995: 84 more generally on autonomous expenditures). Let us conduct a simple thought experiment based on the framework of classical economics. For given methods of production, monetary policy, via changes in interest rates, can influence the distribution of income directly by affecting the rate of profit and indirectly through wage bargaining induced by a change in the rate of interest (cf. Pivetti 1991: 16, 33, 45-6). Therefore, both profits and wages are affected. Consequently, it affects the inducement to invest and the propensity to consume but ‘there is no a priori functional link that allows one to predict the direction of the impact of a given change in distribution on effective demand’ (Pivetti 1991: 50).

Subsequent to the era of the classical economists and Marx, it is not just the landowners and capitalists who can engage in autonomous consumption but also the workers; as a matter of fact, household debt renders a part of workers’ consumption autonomous (cf. Barba & Pivetti 2009; Kapeller & Schütz 2014). It is to be noted that the

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113 Wilkinson (1988; 2012) describes the process through which workers’ rising customary consumption standards have been ‘consolidated’ (to use Steuart’s term) in their real wages primarily owing to the collective bargaining undertaken by the trade unions, with specific reference to United Kingdom.
ability of workers to borrow presupposes positive saving, and positive saving is also necessary to service the debt. Since workers’ incomes exceed customary subsistence requirements, they engage in saving and are consequently able to vary their consumption autonomous of current income even without recourse to external financing. The possibility of workers’ positive saving is noted by Serrano 1995: 79, n. 1 and Aspromourgos 2013: 26. This also depends on the wider processes of emulation and taste formation (cf. Duesenberry 1949: 24, 26-7). However, according to Duesenberry,

...the frequency and strength of impulses to increase expenditure depends on frequency of contact with goods superior to those habitually consumed. This effect need not depend at all on considerations of emulation or “conspicuous consumption.”

(Duesenberry 1949: 27-8)

But emulation of some sort is certainly present in the process Duesenberry indicates in the first sentence of the above excerpt. What is relevant to our purposes is that Duesenberry’s hypothesis suggests that it is relative consumption which really matters. Thorstein Veblen’s ‘conspicuous consumption’ is a form of relative consumption too (cf. Lavoie 2014: 103). Relative consumption, say, of the rich and the poor, depends on the functional and personal income distribution; the latter also determines their ability to borrow. It suffices to note that the precise evolution of tastes is subject to wider social and political forces. This has the potential to raise the levels and growth of autonomous consumption assuming sufficient incomes and/or access to credit. This conception of taste formation underscores the social nature of consumption, or in marginalist terms, the endogeneity of preferences.

Technological changes, write Cesaratto et al., can foster autonomous consumption through ‘creating new needs and making consumer durables quickly obsolete’ and a ‘stream of product innovations may thus increase the rate of growth of autonomous consumption’ (Cesaratto et al. 2003: 48; cf. Pasinetti 1981: 68-70; Gualerzi 2012; Smith 2012: 565-7). However, this is contingent on both functional income distribution and personal income distribution which together determine the ability of workers to access credit in which case a portion of workers’ consumption can be treated as autonomous. As

\^114 For a historical account of the neglect of the idea of relative income in economics and the positive contributions of Keynes and Duesenberry to this literature, see Drakopoulos 2011: 443-7. Also see Trezzini 2012: 358-66 on the social significance of consumption in Duesenberry.
noted previously, positive saving even without recourse to credit provides ground for autonomy.

Consumption tends to be irreversible in nature. It readily increases during upturns but is very inelastic with respect to decreases in income (Trezzini 2011: 539). This facet is contained in the cyclical asymmetry of the marginal propensity to consume pointed out a few paragraphs earlier. According to Trezzini, a persistent rise in consumption standards indirectly influences the marginal propensity to consume and endogenously generates growth (Trezzini 2011: 553-4).

The preceding discussion about the role of autonomous consumption particularly lends support to Kalecki and Keynes’s point that an increase in consumption generates an increase in activity levels (section 11.3). This rise in consumption induces firms and entrepreneurs to step up investment levels which consequently raise activity levels (cf. Garegnani 1978: 337). In the dynamic context, the growth in autonomous consumption leads to a growth in activity levels. Thus, growth is demand led vis-à-vis marginalist economics where growth is supply driven.

12.3 Demand-led growth and classical economics

In a closed economy with no government and given technology, under conditions of free competition, a growth in autonomous consumption demand is sufficient for economic growth. As noted in the previous section, the asymmetry of the marginal propensity to consume reflective of the autonomy in consumption can also endogenously generate growth. In a substantive sense, economic growth is seen to be closely associated with social and political institutions which influence the growth of autonomous expenditures (cf. Garegnani & Trezzini 2010: 124 on the ‘central importance of historical and institutional circumstances in the growth process’). This section discusses the status of classical economists, starting with Cantillon (chapter 2) and ending with Marx (chapter 10), in relation to the simple growth model outlined in this chapter and the ensuing commentary on autonomous consumption.

The idea that aggregate supply adapts to aggregate demand, noted in the previous chapters and the particular attention given to it in chapter 11 (section 11.1), is, in a sense, present in the classical economists and Marx. Furthermore, it is also seen that equilibrium
in the commodity market does not guarantee full employment of labour in the classical economists and Marx. In other words, there are no tendencies in a competitive economy which ensure the equilibrium between the demand and supply of labour. It is the same in Kalecki and Keynes and is articulated more clearly through their principle of effective demand. The classical economists and Marx do not successfully transition from the balancing of supply and demand in the markets for individual commodities to the balancing of supply and demand for aggregate output. This is due to them lacking a clear formulation of the issue of saving-investment equilibration. It is in Kalecki and Keynes that the equilibration process between planned saving and planned investment is explicitly addressed; for, in the classical economists, most notably in Smith and Ricardo, planned saving and planned investment are treated as one and the same thing. In Kalecki and Keynes, planned saving is brought into equilibrium with planned investment through variations in activity levels and employment. A rise in investment considered autonomous in Keynes, raises activity levels. Similarly, in the dynamic case, as demonstrated in section 12.1, a growth in autonomous expenditures generates economic growth and also simultaneously induces a growth in employment levels and production capacity.

The concept of circular flow and the assumption of zero leakages in Cantillon, Quesnay, Turgot and Steuart contain the positive association between output and commodity demands; the causation runs from commodity demands to output levels. That is, if planned aggregate expenditure is insufficient to validate the aggregate output at normal prices, activity/output levels fall. And in the dynamic context, if the growth of aggregate demand is not in line with the growth of capacity, there will be a fall in the rate of growth of production capacity, activity levels and employment. They recognise that a leakage from the circular flow reduces aggregate demand and consequently lowers activity levels and employment. Despite such references, in their theory of activity levels, they treat leakages to be zero; this is also because of their possessing the special assumption that planned saving is one and the same as planned investment. Among these writers, Steuart comes closest to the Keynesian causation through his autonomous demand notion (section 5.4) although he does not have a mechanism for equilibration of saving and investment via aggregate activity levels.
The affinities between the circular flow and the realization of surplus in classical economics and Marx and the principle of effective demand in Kalecki and Keynes have already been pointed out (esp. section 11.3). Since Smith and Ricardo treat planned saving and planned investment to be one and the same, aggregate demand deficiency is no more a possibility.\textsuperscript{115} However, as noted in section 7.4, in Ricardo’s economics the size and composition of aggregate demand determines the size and composition of aggregate output and consequently a permanent fall in aggregate demand has a negative impact on activity levels and employment, but he thinks this will not occur. His positing that demand cannot affect the rate of profit and his treating planned saving as one and the same as planned investment logically negates the possibility of aggregate demand deficiency. But Sismondi, Malthus and Marx criticise this view and point to something like an accelerator idea. Sismondi points out the possible divergence between aggregate supply and aggregate demand when commodities are at their normal prices implying that planned saving can be different from planned investment (section 8.4). Malthus argues that unproductive consumption (that is, the autonomous consumption of the landlords) can fill the gap between gross output and real wages since it is non-capacity-creating; hence, he stresses the need to have an appropriate ratio between productive and unproductive consumption (section 9.4). Although Sismondi and Malthus address the question of demand sufficiency, it is not coherently resolved in their economics. In an economy where saving and investment decisions are decentralised, the decision to save cannot be treated as one and the same as the decision to invest.

The significance of demand comes through clearly in Marx’s ‘general formula of capital’, a more articulate form of the circular flow idea present in the classical economists. Any leakage depresses activity levels. In section 10.4, the problem of demand deficiency in Marx is closely examined by focusing on the impact of hoarding and the frequent possibility

\textsuperscript{115} Hence, Dutt is able to argue that the ‘classical-Marxian models of economic growth’ neglect the constraining role of aggregate demand (Dutt 2011: 358-60). However, he does admit that his representative growth model ‘does not do justice to the growth theories of all of the classical economists’ (Dutt 2011: 360). As has been particularly noted in chapter 11 and in the current chapter, the very special assumption of treating planned saving to be one and the same as planned investment entails the sufficiency of aggregate demand for any level of aggregate supply. But Sismondi, Malthus and Marx did point out the possibility of aggregate demand insufficiency (despite Malthus making the same very special assumption as Smith and Ricardo).
of gluts in commodity markets which are reinforced due to his incorporation of money in
his economic analysis. This disequilibrium of aggregate demand and supply also points to
the possibility of planned saving diverging from planned investment. Commodity markets
ultimately clear due to the working of free competition and hence Marx writes that
‘[p]ermanent crises do not exist’; but the clearing of the commodity markets does not
imply a simultaneous clearing of the labour market. Marx’s discussion of the significance
of demand also contains something like the idea of the accelerator. The idea of the
accelerator is implicit in Keynes’s economics where investment is ultimately dependent on
consumption (section 11.3). In the dynamic context, a growth in consumption induces a
growth in investment. That is, a growth in autonomous consumption (or more generally,
autonomous expenditures) is sufficient for economic growth including the growth of
production capacity. The model of growth outlined in this chapter captures the
prominence given to the constraining role of demand by Sismondi, Malthus and Marx. And
the analytically coherent distinction between productive and unproductive labour in the
classical economists and Marx is that between capacity-creating and non-capacity-creating
expenditure.

Is there any reference to something like autonomous consumption in the classical
economists? The autonomous consumption of the landlords in Cantillon (section 2.3) and
Quesnay (section 3.4) and the unproductive consumption (or the consumption of
unproductive labour) in Smith, Ricardo, Malthus, Sismondi and Marx suggest precisely this
– a part of aggregate demand perhaps can be conceived of as autonomous. Moreover,
with wages being at customary subsistence levels, the possibility of some workers
curtailing their consumption so as to save is entertained particularly by Cantillon, Turgot,
Steurart and Smith. The possibility of workers engaging in luxury consumption is to be found
in Smith and Sismondi. Also, the discussion of luxury consumption financed by borrowing
in Cantillon and Steuart reinforces the idea that part of aggregate consumption is
autonomous. The idea of autonomous consumption assumes particular significance
because only non-capacity-creating expenditures such as autonomous consumption can
fill the gap between aggregate supply and capital expenditure (inclusive of workers’ wages)
(see sections 11.1 and 12.1).
Other kinds of non-capacity-creating autonomous expenditures include net government spending, exports and non-capacity-creating business expenditure, such as research and development expenditures. Steuart’s treatment of foreign consumption and Smith’s ‘extent of the market’ points towards exports as a distinct source of demand and so does Luxemburg’s account (section 11.2; cf. White 2006: 166-9 and Smith 2012: 564 for a demonstration of the positive role played by exports in economic growth). Though, it must be noted that for Luxemburg non-capitalist demand was important; she considered this to be a ‘historical’ solution as opposed to a ‘theoretical’ one. In an open economy exports matter but in a closed global economy they do not. However, as already noted in the previous chapter (section 11.2) and in the chapter on Smith (section 6.3), the search for external markets can have an impact on the levels and growth of autonomous elements of aggregate demand (cf. Aspromourgos 2013: 25, n. 7). A growth of net government spending, exports and/or non-capacity-creating business expenditure implies growth in autonomous demand and can generate economic growth (cf. Cesaratto et al. 2003: 48; Smith 2012).

The idea of the hysteresis of the real wage is vivid in Steuart’s account of ‘political necessaries’ – which are ‘formed by habit and education’ – and the aspiration effect which instils a ‘taste for superfluity’ in the economy (sections 5.2 and 5.4). However, there is no coherent growth theory in Steuart and a solution for determining overall activity levels is unclear. Smith possesses an account of the hysteresis of the real wage wherein economic growth causes market wages to be persistently higher than natural wages which eventually raises the natural wage itself (section 6.2). Since the real wages in classical economics are at customary levels, a product of history, the link between real wages and wider social and political forces is in a sense already embodied in the very notion of customary consumption. In Ricardo too, the real wage is dependent on ‘habits and customs’ but there is no account of its dynamics in connection with economic growth (section 7.2). In contrast, Sismondi argues that the extant social order depresses workers’ wages and he therefore does not entertain the possibility of real wages rising as the economy grows (section 8.2). Malthus treats changes in habits which occur during the process of economic growth as merely temporary and therefore reversible (section 9.2). The hysteresis of the real wage suggests that real wages (the \( w \) in the propensity to consume \( (w/l) \)) can endogenously
increase with economic growth *ceteris paribus* although this is contingent on the strength of the balance of bargaining power (for example, the strength of unionisation and the system of labour regulation).

The link between technological progress and economic growth is addressed in Smith, Ricardo, Sismondi and Marx. The widening of the ‘extent of the market’ in Smith facilitates division of labour and leads to a rise in labour productivity (section 6.3). In Smith, a growing economy is characterised by labour productivity growing more rapidly than real wages in which case \( w_l \) is falling. Or, if both real wages and labour productivity grow at the same rate, \( w_l \) is unchanging. The gap between aggregate output and real wages is filled by investment demand. That is, technological progress is not sufficient for growth if demand is insufficient to purchase the increased potential supply of output. Moreover, the growth of real wages, as noted above, is dependent on wider social and political forces and this determines the extent of the gap. This connection, in particular its contingency on wider economic and social institutions is of significance to activity levels, economic growth and employment (addressed briefly in section 12.1). Nothing can be said *a priori* about the rate of growth in employment of labour. It depends on the precise nature of technological progress. The possibility of workers being displaced as a consequence of technological progress is present in Ricardo (section 7.3), Sismondi (section 8.3) and Marx (section 10.3). Sismondi’s economics contains an early discussion of the link between technology, output and employment levels. Sismondi is emphatic that output growth arising from technological progress is not beneficial to the economy unless there is an equivalent growth in aggregate demand. The tendency of the rate of profit to fall in Marx (section 10.3) is also a contingent phenomenon – it is contingent on the precise nature of technological progress, namely, the tendency for the ratio of constant capital to variable capital to rise more rapidly than the rate of exploitation (the ratio of surplus value to variable capital) in the course of economic growth.

In the model presented in this chapter, a growth in autonomous demands or an increasing supermultiplier are sufficient for economic growth including growth in production capacity – an answer to what we referred to as the dynamic Keynes question. However, there is an asymmetry between autonomous demand growth and an increasing supermultiplier because the growth from the latter will only persist if the supermultiplier
continuously rises which is hardly possible. These autonomous demands and the supermultiplier parameters in turn depend on a variety of social and political factors. Just as value in classical economics is determined through *exogenous* distribution so is the case with growth (when complemented with the principle of effective demand) – economic growth is determined through *autonomous* expenditures or the surpermultiplier (via autonomous shifts in the marginal propensity to spend). Both the theory of value and the theory of growth in the classical framework are thereby open to wider forces in the society in a substantial manner. Also, in a deeper sense, a theory of growth grounded in the framework of classical economics and the principle of effective demand demonstrates that the growth of the surplus depends on how it is utilized by the wage and profit earners (subject to their discretion) which further depends on the particular extant economic, social and political institutions.
CHAPTER 13

CONCLUSION

In the preceding chapters, the standpoint of the classical economists with reference to the determination of activity levels and economic growth has been presented. A detailed account of this is found in chapters 2 to 10, which deal with Cantillon, Quesnay, Turgot, Steuart, Smith, Ricardo, Sismondi, Malthus and Marx respectively. In addition, each of these chapters contains a section on their respective treatment of the theory of value and distribution. It is in chapter 11 that the core thesis, so to speak, is articulated: the question of aggregate demand sufficiency present in classical economics (notably in the work of Sismondi and Malthus) and Marx, via Luxemburg, receives a mature and candid treatment in Kalecki independent of Keynes. The mature treatment in Kalecki and Keynes mainly owes to their account of the saving-investment coordination in a decentralised economy.

Although Cantillon’s economics lacks an account of capital accumulation and hence of economic growth, his identification of the landowners’ ability to engage in autonomous consumption (section 2.3) points towards a theory of aggregate activity levels and economic growth where demand plays a leading role (section 12.3). Moreover, he notes that the class of entrepreneurs and workers emulate the consumption of the landowning class. In Quesnay, we find one of the earliest attempts at theorizing growth with consumption propensities of landowners playing a dominant role (sections 3.3 and 3.4) but it is unsatisfactory because profits do not find a permanent place in his price theory (section 3.2). Also, Quesnay correctly identifies saving as a leakage from the circular flow, which depresses activity levels. However, no further details are present in Quesnay as regards the vehicles of saving or how they are used (section 3.3). From the discussion of landlords’ and workers’ consumption in Quesnay, as noted in chapter 3, it is clear that the issue of adequate aggregate demand is already implied but not consciously understood or satisfactorily theorized. To reiterate, the circular flow is understood as follows: given the gross product produced and the set of natural prices, unless the entire product is demanded at least at these prices, planned expenditure will be insufficient to demand the entire product at their natural prices. A leakage implies insufficient planned expenditure. A positive saving implies net capital accumulation and economic growth in Turgot’s economics. Although Turgot recognises the possibility of a glut arising from leakages from
the circular flow, he does not pursue their implications for his growth theory in any systematic manner. Steuart engages more deeply with inter-sectoral relations than Quesnay and possesses a notion of demand, relatively autonomous of the current levels of income and output (section 5.4). However, his economics lacks a coherent theory of profits, which makes his theory of value and distribution closer to that of Cantillon and Quesnay than of Turgot (section 5.2). But his account of emulation is suggestive of an endogenous socio-economic mechanism through which autonomous consumption may be affected. Despite the discussion of leakages from the circular flow in Quesnay and Turgot, in both their accounts of economic growth, a decision to save is treated as one and the same as a decision to invest. This is a very special assumption to be found later explicitly in Smith and Ricardo.

According to Smith, net capital accumulation is sufficient for economic growth. Smith recognises the problem which can arise from a deficiency of aggregate demand when he discusses the ‘extent of the market’. In Smith, as is implicit in Quesnay and Turgot, we find a very special assumption: planned saving and planned investment are one and the same thing. This special assumption implies that no wider coordination of saving and investment is required. Hence, the gap between output, real wages and unproductive consumption is always and exactly filled up by investment. As we described it in the concluding section of chapter 6 (borrowing the phrase from Aspromourgos 2009: 195), Smith’s theory is in fact ‘really a theory of how production capacity can grow, or one may say, a theory of potential growth.’ Ricardo too possesses the same special assumption present in Smith, which he terms ‘Say’s maxim’. Due to diminishing returns on land, along Ricardo’s growth path, the labour time required to produce the real wage rises (and the rate of profit falls) and therefore the gap between output and real wages (and unproductive consumption) is narrowed. This gap, as in Smith, is filled up by investment. Even though a temporary glut of commodities is possible, it will be eliminated in the long run through the working of competitive forces which lead to a uniform rate of return on capital advanced. Therefore, in Ricardo, permanent gluts do not exist. However, this does not imply that labour is fully employed in the long run. As a matter of fact, Ricardo explicitly discusses the case of labour unemployment (sections 7.3 and 7.5). In contrast, Smith’s political economy suggests that the supply of labour will adapt to the demand for labour
in the very long run. Note that Smith’s causation is opposite to that found in marginalism wherein the demand for labour adapts to its supply.

Sismondi devotes considerable attention to the process by which competitive forces tend to equalize the rates of return on capital advanced in different sectors of the economy. Growing fixed capital as a consequence of technological progress and the difficulties associated with reskilling of workers are two obstacles which lengthen the process (section 8.2). Since workers are paid less than the value they add to the product, workers’ consumption is insufficient in purchasing the entire product. In other words, a gap necessarily exists between the value of output and real wages in a capitalist economy – the extant social order studied by Sismondi (as well as other classical economists, particularly from Smith forward). It is aggregate demand which determines aggregate supply in Sismondi, and the depressed wages of the workers keep activity levels and economic growth depressed too. Malthus understands that investment cannot fill the gap between the value of output and real wages because it creates capacity. A very embryonic version of the accelerator idea can thus be gleaned from Malthus (section 9.4). For Malthus, unproductive consumption offers one way of filling up the gap. More importantly, both Sismondi and Malthus stress the need to possess the right productive-to-unproductive-labour ratio such that activity levels are validated and there is steady economic growth although neither Malthus nor Sismondi is able to ascertain this proportion. Thus, we find the Keynes question being framed more correctly in both Sismondi and Malthus vis-à-vis Smith and Ricardo, but it not satisfactorily answered in either. The role of autonomous consumption, particularly of the landlords, in determining activity levels is found in Cantillon and more clearly in Malthus; in Steuart too, the idea of autonomous consumption can be found. However, Sismondi treats the induced consumption of the workers as the crucial component of aggregate demand and so does Marx (see below).

Marx poses the Keynes question more clearly than the classical economists. His analysis of money, and the impact leakages have on the realization of the surplus value underscore the important role played by aggregate demand in determining activity levels. Disproportions between demand and supply in Marx leads to temporary, albeit frequent, gluts in commodities. However, there cannot be a permanent glut in commodities. It is the
role of money in Marx’s analysis (and the consequent realization that money that is saved need not be automatically and entirely invested) which serves as the point of departure. His analysis of money together with his understanding of the possibility of crises enables him to make an advance over the classical economists, particularly the special assumption explicit in Smith and Ricardo that planned saving is one and the same as planned investment. Real wages, as in Sismondi, is less than the additions made by workers to the value of the output. The gap between output, aggregate real wages and unproductive consumption gets exactly filled up by investment, albeit only accidentally leading to periodic crises. Therefore, as noted earlier, there is no permanent glut in commodities. However, a permanent glut of workers exists. There is no tendency towards the full employment of labour in Marx.

Rosa Luxemburg draws on the work of Marx and poses the Keynes question with utmost clarity. To state the point more forcefully, the relevant passage from Accumulation of Capital (AC) is quoted below (already quoted in section 11.2).

...the desire to accumulate plus the technical prerequisites of accumulation is not enough in a capitalist economy of commodity production. A further condition is required to ensure that accumulation can in fact proceed and production expand: the effective demand for commodities must also increase. Where is this continually increasing demand to come from, which in Marx’s diagram forms the basis of reproduction on an ever rising scale?

(AC: 131)

Luxemburg is exceedingly clear that it is aggregate demand which determines aggregate supply. Furthermore, what forces ensure that the growth in productive capacity will be exactly matched by an equivalent growth in aggregate demand? This is the dynamic Keynes question. According to her, the source of this growing aggregate demand is to be found in non-capitalist societies. This solution she considers a ‘historical’ one as opposed to a ‘theoretical’ one (cf. section 11.2). In an open economy with a government, Luxemburg’s solution, logically speaking, points to a foreign trade surplus and/or net government spending. These two, together with capitalists’ consumption, are the components of Kalecki’s theory of the realization of profits. Hence, as detailed in section 11.2, we argue that, on the question of aggregate demand sufficiency, it is Luxemburg who acts as the bridge between the classical economists, Marx and Kalecki. To state the thesis differently, the problem of demand deficiency present in varying forms and degrees in the classical
economists organically reaches a mature form in Kalecki, via Marx and Luxemburg. Marx-Luxemburg-Kalecki thus emerges as a crucial sequence in the development of the principle of effective demand. It must however be noted that Kalecki’s theory of prices does not fall within the classical tradition (see section 11.3). The above sequence also must be qualified because the role ascribed to non-capitalist demand by Luxemburg is not shared by Marx nor Kalecki.

What fills the gap between the value of output and aggregate real wages in Kalecki? His answer: gross accumulation and capitalists’ consumption. As argued in chapter 11, this is closely analogous to Keynes’s saving gap. The gap between the value of output and consumption in Keynes is filled up by investment. Aggregate output will be validated if and only if investment fills the gap between aggregate output and aggregate consumption exactly. Both Kalecki and Keynes recognise the dependence of accumulation on consumption demand – the accelerator idea. The breakthrough visible in Kalecki and Keynes is their articulation of the saving-investment coordination: it is activity levels which tend to bring planned saving into equilibrium with planned investment. In other words, saving adapts to investment and aggregate supply adapts to aggregate demand. Also, importantly, this need not be at the full employment level of savings. That is, there is no tendency towards the full employment of labour in both Kalecki and Keynes, just as in the classical economists and Marx. But there is no growth theory to be found in Kalecki or Keynes due to their assuming productive capacity as given. Chapter 12 presents a simple growth model based on the principle of effective demand (section 12.1) and also evaluates the status of classical economics and Marx in the framework of demand-led growth (section 12.3).

The simple growth model in chapter 12 captures the autonomy that components of aggregate demand possess in classical economics. A growth in autonomous demand is sufficient for economic growth. Additionally, a persistent change in the value of the surpermultiplier also generates economic growth. Economic growth is demand-led in contrast to marginalist economics wherein growth is supply driven. An affinity is to be found in the idea of the circular flow and the realization of the surplus in classical economists and Marx and the principle of effective demand. But this affinity is not to be overstated for the classical economists and Marx lacked a mechanism for the equilibration
of saving and investment via aggregate activity levels. The suggestion by Sismondi and Malthus for a right proportion between productive and unproductive labour is seen to be vindicated; the analytically coherent restatement of this is that there needs to be a right proportion between capacity-creating and non-capacity-creating expenditure. This is necessarily the case because only non-capacity-creating expenditures can fill the gap between aggregate supply and capital expenditure. Also, in chapter 12, the contingent nature of the relationship between technological progress and economic growth was noted. Drawing on James Duesenberry, the social nature of consumption, in particular its irreversibility, is underscored in section 12.2.

By way of a final conclusion, the framework of classical economists and Marx together with the principle of effective demand provides an analytically coherent, theoretically satisfactory and historically open way of understanding not only growth dynamics, but also the macroeconomic implications of, for instance, technological progress, household debt, public debt and monetary policy on activity levels and economic growth.
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