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*Saving and Investment in the Twenty-First Century: The Great Divergence – some comments from a post-Keynesian perspective**

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This contribution discusses the book Saving and Investment in the Twenty-First Century: The Great Divergence by von Weizsäcker/Krämer (2021). It touches upon the underlying theoretical perspectives, von Weizsäcker's neo-Austrian view and Krämer's short-run Keynesian theory, and it proposes an alternative based on post-Keynesian distribution and growth theory. It also reviews the economic policy proposals of the book with respect to government deficits and debt, as well as international coordination of current-account balances, and finds broad agreement with modern post-Keynesian proposals, with some deviation when it comes to macroeconomic policy coordination among monetary, fiscal and wage/incomes policies. It concludes that these economic policy agreements should not be taken as a surprise. The requirements of stabilising government deficits and debt, in the face of an excess of private saving over private investment at full employment, and an excess of the private desire to hold net financial assets over the private-sector supply of financial liabilities, are based on solid national income and financial accounting. They are thus compatible with different macroeconomic theories regarding long-run equilibrium and adjustments towards it.

Keywords: *saving, investment, interest rate, growth, stagnation, macroeconomic policy*

JEL codes: *E12, E13, E14, E20, E43, E60*

1 INTRODUCTION

In 2010, I was very impressed by Carl Christian von Weizsäcker's (2010) article in the *Frankfurter Allgemeine Zeitung*, which put forward the requirements for government deficits and debt for countries like Germany in the contemporary period of economic development.¹ This was the same economic policy, now from a neo-Austrian perspective, that many others, including myself, had proposed from a post-Keynesian viewpoint for many years. When Hagen Krämer, my long-time friend, fellow student at the University

* This contribution is based on my comments on the German edition of von Weizsäcker's and Krämer's (2019) book in a panel at the 23rd Conference of the Forum for Macroeconomics and Macroeconomic Policies (FMM), Berlin, 24–26 October 2019. For helpful comments I would like to thank the participants and, in particular, Stefano di Bucchianico, Hagen Krämer and Ryan Woodgate.

1. The article is reprinted in the appendix of the original German version of the book (von Weizsäcker/Krämer 2019: ch. 14) and a translation is included in the appendix of the book to be discussed here (von Weizsäcker/Krämer 2021: ch. 14).

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of Bremen in the second half of the 1980s, and a post-Keynesian colleague, told me that von Weizsäcker was preparing a full book on his approach together with him as a co-author, I was surprised about this cooperation, but very curious and excited to see the final results. Having published some shorter comments on the original German version of the book (von Weizsäcker/Krämer 2019) in Hein (2020), I will now take the opportunity to provide some more elaborate considerations on the occasion of the updated English translation of the book as *Saving and Investment in the Twenty-First Century: The Great Divergence* (von Weizsäcker/Krämer 2021, vWK henceforth).²

The book contains four main contributions:

1. It provides a detailed elaboration of von Weizsäcker's neo-Austrian view on saving and investment under the conditions of a high equilibrium or natural rate of interest (the 'Friedman world') and under the conditions of a low or even negative equilibrium or natural rate of interest (the 'Keynes world'), arguing that the latter is the world we are currently living in.
2. It contains an empirical illustration on the different stocks of private wealth, real capital, land, and net financial assets, for the OECD countries plus China.
3. It provides a short chapter giving a Keynesian view on investment, saving and stagnation.
4. It derives the economic policy conclusions from von Weizsäcker's neo-Austrian perspective in general and for Germany and Europe in particular.

My comments will focus on the theoretical foundations and the economic policy conclusions of the book, but not on the empirical calculations and illustrations. The latter are very useful, but I do not want to enter into the debate about the pros and cons of considering 'implicit public debt', and thus adding the retirement claims against the social benefit system and the state (and also claims against health and care insurance) to the public debt, as vWK do (see Bofinger 2020 for a critique). In my view, the fundamental arguments and contributions of the book do not depend on the length of the economy's or society's balance sheet, and are therefore independent of whether retirement and other claims against the social benefit system and the state are added to the public debt or not.

2 VON WEIZSÄCKER'S NEO-AUSTRIAN APPROACH TOWARDS SAVING AND INVESTMENT

2.1 Outline of von Weizsäcker's real analysis

In chapters 2–6 of the book, vWK provide the basics of a neo-Austrian theory, or a Smith–Coase–Menger–Böhm–Bawerk approach (vWK: 80–83), which explains why, abstracting from the foreign and public sectors, the equilibrium real rate of interest, or the natural rate, has become negative in the OECD plus China area.

The demand for the stock of net financial wealth by private households, determined by the desired 'waiting period' (Z), has a tendency to increase faster than the supply of the stock of financial liabilities issued by firms, determined by the period of production or the 'roundaboutness' of production (T). Empirically, this is illustrated by showing that historically the real capital–output ratio has remained constant (vWK: 65–66), whereas

2. For the English translation, some data have been updated and a section on the COVID-19 crisis has been added.

the wealth–output ratio, including financial assets against the state, has shown a rising trend.

As explained in detail in chapter 3, the main reason for the increase in the demand for holding net financial wealth is seen in the demographic development, that is, in aging societies, which raises the desired waiting period in the aggregate. Following chapter 4, the main reason for the limit to the supply of financial liabilities issued by the firm sector is seen in the limits to increase the complexity of production and the division of labour, that is, the period of production, due to falling marginal gains from roundabout production (vWK: 83), that is, falling marginal productivity of capital.

Basically the theory provides a loanable funds approach, in which demand and supply are each functions of the real rate of interest, that is, $Z(r) = T(r)$. For a negative equilibrium real rate of interest in the market for loanable funds, it means that the flow supply of household saving exceeds the flow demand for firms' investment purposes at any positive real rate of interest. From this, it then follows that the low or even negative real rate of interest determines the low or zero monetary rates of interest set by central banks and financial markets (vWK: 83).

It is also straightforward that with a negative natural rate for the domestic private sectors, the market equilibrium real rate of interest (at full employment) can only be lifted into positive territory if the supply of financial liabilities (and the demand for private saving) is either raised by government deficits and debt and/or by current-account surpluses, that is, foreign-sector deficits and debt. If the latter is excluded, as in the authors' analysis for the OECD plus China area as a whole, then it becomes the task of government debt (D) to guarantee an equilibrium with non-negative real interest rates: $Z(r) = T(r) + D$.³

2.2 Problems: real interest rate as the adjusting variable towards the steady state, lack of monetary analysis, and what about distributional issues?

Can the real rate of interest be seen as an equilibrating mechanism between the desire to hold net financial assets by households and the supply of financial liabilities by the firm sector at any rate – irrespective of Friedman or Keynes worlds? The authors argue that with a positive equilibrium real interest rate, we are in a 'Friedman world' in which saving and investment are equilibrated by the real rate of interest, whereas with a negative equilibrium real rate of interest we are in a 'Keynes world' where this equilibrating mechanism is blocked (chapter 10.3). But, generally, is there a real rate of interest equilibrating the desire to save with the desire to invest? Do we have a long-run (notional) equilibrium in which 'a dog called savings wag(s) his tail labelled investment' (Meade 1975: 62), a quote also used in chapter 7 (vWK: 205, fn 3), and the equilibrating variable is the real rate of interest?

This view has to face the challenges of the very existence of a uniquely real interest-rate-elastic and downward-sloping capital demand curve in a more-than-one-good economy, as put forward in the 'Cambridge controversies on the theory of capital' (Harcourt 1969; 1972; Hein 2014: ch. 3.6; Lazzarini 2011). This controversy has shown that in a more-than-one-good economy the demand for capital is generally not a monotonously downward-sloping function of the real rate of interest. Aggregate production functions with these properties are thus not convincing from a theoretical perspective. The same holds true for the choice of technique – or the production period: There is no systematic

3. On the cover of the English book, and then on pp. 241 and 312, vWK explicitly introduce land (L) into the equation: $Z = T + L + D$.

response towards changes in the real rate of interest. We cannot be sure that with a lower real rate of interest methods of production turn more capital-intensive or more ‘round-about’ (Fratini 2019; Samuelson 1966). Furthermore, empirical good fits of neoclassical production functions (as claimed in vWK: 72–73) are usually based on estimating accounting identities, as Jesus Felipe, Franklin Fisher and John McCombie have argued in many places (Felipe/Fisher 2003; Felipe/McCombie 2013; Fisher 1971). From the Cambridge–Cambridge controversy, we also know that consumption per head, and thus the ‘supply of saving’ and the change in the household demand for net financial assets, is not a continuous function of the real rate of interest (as claimed in vWK: 31–32).

Furthermore, there is the Keynesian challenge that in a monetary production economy ‘a dog called investment wags his tail called saving’ (Meade 1975: 62). In such an economy, saving adjusts to investment, initially financed independently of aggregate saving through a developed financial sector generating money and credit out of nothing. This is not only true for the short run, as chapter 7 of vWK seems to suggest, but also for long-run growth, as Joan Robinson (1962: 82–83) has famously claimed:

The Keynesian models (including our own) are designed to project into the long period the central thesis of the *General Theory*, that firms are free, within wide limits, to accumulate as they please, and that the rate of saving of the economy as a whole accommodates itself to the rate of investment that they decree.

These long-run macroeconomic adjustments of saving to investment occur via changes in output growth and capacity utilisation, the Kalecki–Steindl mechanism, and/or through changes in functional income distribution, the Kaldor–Pasinetti–Robinson mechanism (Hein 2014).

Applying monetary analysis (Keynes 1933; Schumpeter 1954), the rate of interest becomes a monetary category, which is exogenous to income generation and growth (Pasinetti 1974: 47) and is determined by monetary factors, that is, central-bank policies and liquidity preference of banks and financial wealth holders. Currently very low rates of interest in money and financial markets are thus a result of these factors, in the case of central banks as a response towards stagnation tendencies and very low rates of inflation, of course, but not a reflection of low or zero equilibrium real rates of interest, as suggested by vWK (vWK: 83). Rather, through different channels (distribution, investment) the monetary rate of interest then affects the rate of profit or the real rate of interest. Post-Keynesians have provided several models for this (Hein 2008; Lavoie 1995).

From this perspective a careful analysis of the determinants of both saving and investment has to be provided in order to identify the causes of stagnation tendencies (Hein 2016). These include:

- the evolution of animal spirits (recently including the effects of financialisation on managements’ desire to invest in real capital stock);
- monetary variables (interest rates, credit availability);
- distributional variables (profits vs wages, retained earnings vs interest and dividends, but also wage dispersion and personal income distribution);
- the type of technological change; and, most importantly
- the stance of fiscal policies.

Here is not the place to present a detailed model; I have provided such an approach, based on Steindl’s (1979) notion of ‘stagnation policy’, in Hein (2016; 2018), the latter applying the approach to the eurozone problems. In terms of this model, the major channels

through which stagnation policy may depress the economy, in principle, can be summarised as follows:

- low autonomous government expenditure growth and lack of aggregate demand management policies weakening overall private expectations and ‘animal spirits’;
- low productivity enhancing public investments in R&D and infrastructure;
- weakening workers’ and trade unions’ bargaining power through policies of (labour) market deregulation, abandoning aggregate demand management and accepting high rates of unemployment in certain periods, by higher interest and hence overhead costs (in the 1980s), as well as structural reforms leading to an increasing dominance of finance (‘financialisation’), which each raise the total profit share;
- generating rising inequality in the personal/household distribution of incomes through various channels, in particular labour and financial market deregulation (‘financialisation’), which will lead to a rise in the average propensity to save; and
- raising real rates of interest through tight monetary policies (as in the 1980s) and dividend rates through structural reforms in favour of shareholders with depressing effects on private investment in the capital stock.

Stagnation tendencies could thus be reversed by:

- stabilising and raising public autonomous expenditure growth, as well as discretionary anti-cyclical fiscal policies, in order to stabilise effective demand growth, prevent deflation with its negative effects on private demand, and to improve the general climate for private-sector investment and consumption;
- raising growth-enhancing public investment, focusing on infrastructure, technology, R&D and education expenditures, in order to stimulate private investment and R&D outlays;
- stabilising and raising the wage share through full employment policies improving workers’ bargaining power, by low interest-rate policies reducing overhead costs, and by the re-regulation of the financial sector reducing the power and income claims of rentiers and shareholders;
- lowering the private households’ average propensity to save by means of redistributing income, both pre-tax via higher wage shares and a more compressed wage structure and after-tax by progressive taxation and social transfers, as well as by removing uncertainty triggering precautionary saving; and
- improving international economic and monetary policy coordination in order to avoid severe current-account imbalances, ‘beggar thy neighbour’ strategies, on the one hand, and rising indebtedness in foreign currencies, on the other.

The coordinated macroeconomic policy package derived from these considerations can be summarised as follows (Hein 2018):

- Central banks should target low long-term interest rates and take care of financial stability, acting as lender of last resort for the banking system and guarantor of government debt preventing nominal interest rates on government debt from rising above trend rates of nominal GDP growth.
- Wage and incomes policies should target stable inflation and stable functional income distribution having nominal wages grow at the sum of the target rate of inflation and the trend rate of labour productivity growth.
- Fiscal policies should follow a functional finance approach (Lerner 1943), targeting government financial deficits ($G - T$) which compensate private-sector financial surpluses ($S - I$) with roughly balanced current accounts ($X - M$) at non-inflationary

full employment levels: $G - T = S - I - (X - M)$. If government deficits are required, stabilising long-run government-debt–GDP ratios without primary surpluses requires interest rates below trend GDP growth, and thus cooperation of the central bank.

The suggestions regarding fiscal policy are fully in line with vWK's conclusions and recommendations for the 'Keynes world', as will be seen below. However, the sustainability of government debt in their approach seems to be under the responsibility of the respective government only (chapter 6.1), whereas in our post-Keynesian view it is based on the cooperation between government and central banks – assuming, of course, that government debt can be issued in domestic currency.

3 KEYNESIAN ANALYSIS IN THE BOOK

Chapter 7 of vWK contains a Keynesian perspective on investment, saving and stagnation. Neoclassical/neo-Austrian and Keynesian approaches are thus treated somewhat asymmetrically. The chapter contains a basic repetition of macroeconomic and financial accounting and it explains that in Keynes the adjustment of saving and investment is not via any rate of interest but via the level of income.

The main characteristics of Keynes's alternative theory of the rate of interest and its determination, however, remain somewhat vague. Nevertheless, in this framework, long-run stagnation and unemployment problems arise, if the desire to save at full employment income levels exceeds the desire to invest – a long-run perspective that Keynes (1943) had outlined in his short piece, 'The long-term problem of full employment'. The problems then require either government deficit expenditures – on investment, but in particular on public consumption. Alternatively, if stagnation already provides high standards of living, the reduction of average working time, and thus an adjustment of supply at full employment to stagnating demand, is proposed, following Keynes's (1930) 'Economic possibilities for our grandchildren'.

However, the basic view in this chapter seems to be that Keynes's (1936) analytical foundation has been short-run comparative statics focusing on flow equilibria (vWK: 204–207) – which is true, of course, for *The General Theory*. Therefore the authors continue with a review of Hansen's (1939) theory of 'secular stagnation', in which a decline in investment dynamics causes stagnation, due to the shift of the 'frontier' in the US and thus a limitation in the discovery of new land and resources, falling population growth and less capital-intensive technical progress. Furthermore, they turn to the rediscovery of the 'secular stagnation hypothesis' by Summers (2014a; 2014b; 2015). Here again, it is the negative equilibrium real rate of interest which causes the problem of stagnation, due to depressed investment dynamics (demographics, technical change, fall in capital good prices, low public investment, etc.), on the one hand, and rising propensities to save (demographics, inequality of income, etc.), on the other.

It is acknowledged that Summers's approach, even if in the latest version (Rachel/Summers 2019) the term 'natural real rate of interest' is replaced by a 'neutral real rate of interest', is based on a neoclassical concept which is close to von Weizsäcker's neo-Austrian approach. I therefore wonder why the authors have nonetheless chosen to include it in a chapter on Keynesian analysis. Furthermore, I was surprised that the authors have avoided any systematic discussion of post-Keynesian distribution and growth theory, in the tradition of Kaldor, Pasinetti, Robinson, on the one hand, and in particular of Kalecki and Steindl, on the other. The same holds true for modern

contributions based on these approaches focusing on investment, saving and finance and the related stock dynamics in order to explain current stagnation tendencies. Only a few short references – partly in footnotes – to Tom Palley's (2016; 2019) and my own work (Hein 2016) can be found. A more elaborated treatment of these and other post-Keynesian approaches would have avoided the current theoretical imbalance of the book and would have allowed for a more systematic comparison of the different theoretical perspectives – see also my brief outline in the previous section above.

4 ECONOMIC POLICY

In chapter 9 of vWK, it is explained that a market economy requires, in limits, the redistribution of income, thus a welfare state, in particular for retirees, price stability and full employment. This should be achieved by a 'stability pact' between the state and the people. According to the authors, in a Keynesian world, with a negative natural rate of interest, this can only be achieved if the government runs appropriate deficits and debt. Following the authors, the alternative, trying to establish a negative equilibrium real rate of interest, would violate the requirement of price stability – but it remains unclear to me how rising inflation could be triggered in a Keynesian world (vWK: 258).

At an international level, in order to maintain free trade, reap the benefits from an international division of labour, and avoid tendencies towards protectionism, severe current-account imbalances have to be adjusted. Therefore, in chapter 10, an international fiscal order is proposed, that is, internationally coordinated fiscal policies or a multilateral balanced account agreement. Countries with low real interest rates and current-account surpluses should increase government deficits and debt, thereby reducing their current-account surpluses through the resulting increase in imports. Countries with high real interest rates and current-account deficits should reduce government deficits and debt, thereby reducing their current-account deficits through the resulting decrease in imports. Real interest rates would adjust, too, that is, rise in current-account surplus and fall in current-account deficit countries, according to vWK.

This type of adjustment is what post-Keynesians have suggested, too, for example in Hein (2016; 2019) and in the Keynesian New Deal proposed by Hein/Truger (2012/2013). However, post-Keynesians do not refer to the respective real interest-rate adjustment, because they do not share the underlying loanable funds approach towards interest rates. Rather, they recommend aiming at government deficits/surpluses to compensate for private-sector surpluses/deficits at non-inflationary full employment and roughly balanced current accounts: $G - T = S - I$, as argued above.

In chapter 11, vWK criticise the German current-account surplus position in the eurozone, which is undermining the stability of the euro, and they propose for the countries within the eurozone to apply a European balanced account agreement, as per the one they had suggested for the world economy. This means that national fiscal policies would have to be coordinated such that internal current-account imbalances in the eurozone would be corrected, and the eurozone as a whole would move from its current surplus position towards a balanced current account with the rest of the world. 'One size fits all' regulations for eurozone member countries regarding government financial balances and government debt, as in the Stability and Growth Pact or the Fiscal Compact, would have to be overcome. For Germany, this also means that the debt brake would have to be abolished in order to make the permanent and considerable fiscal deficits feasible that are required by the excess of private saving over private investment.

All of this is fully in line with what post-Keynesians have suggested in order to cope with the eurozone crisis and the imbalances in the eurozone (Hein 2013/2014; 2018;

Hein/Detzer 2015; Hein/Truger 2014). However, whereas vWK argue that with such an agreement on financial balances each member country should be responsible for its fiscal solvency, post-Keynesians have argued that functional finance fiscal policy in each member country needs the cooperation of the European Central Bank (ECB) in order to protect member countries against financial market attacks and speculation – see my general outline of a post-Keynesian coordinated macroeconomic policy mix in Section 2.2 above. Furthermore, they have provided further suggestions to deal with current-account imbalances beyond adjusting fiscal balances and real exchange rates, like industrial and regional policies, because they acknowledge that current-account imbalances are co-determined by non-price competitiveness and growth differences, following Thirlwall's (1979) path-breaking work.

In chapter 12, the notion of managing financial balances internationally is applied to the development problem, and vWK argue that catching up should be associated with current-account surpluses of the catching-up countries and hence current-account deficits of the developed capitalist world. This would then require even higher government deficits than the ones associated with balanced current accounts in the developed capitalist economies. However, such a constellation, that is, higher growth plus current-account surpluses in the catching-up countries and lower growth with current-account deficits in the mature countries, would require a considerable real undervaluation of the catching-up countries' currencies, high price elasticities of their export and imports, high income elasticities of their exports and very low income elasticities of their imports. Only then will the growth differences associated with catching up have little or no effect on the current-account balances. Looking at Thirlwall's law (1979) and the rich empirical literature on this law, empirically this seems to be highly unrealistic and unlikely (McCombie 2011; Thirlwall 2011).

5 CONCLUSIONS

vWK have published a thought-provoking book which deserves intense discussion, both in the academic and the political arena. Although I have highlighted significant theoretical disagreement with von Weizsäcker's neo-Austrian view and with the treatment of the Keynesian approach by the two authors, this review has shown broad agreement between the vWK view on the role of fiscal policies for stabilising national and international economies and the post-Keynesian approach that I favour. What is currently required, in particular in the mature capitalist economies, is a reconsideration of the role of fiscal policies, government deficits and government debt. With an excess of private saving over private investment at non-inflationary full employment levels, compensating fiscal deficits and the related government debt are required if we want to avoid the present current-account imbalances and stabilise full employment and constant inflation.

Can this policy recommendation be wrong if it is derived from completely different and competing theoretical foundations, that is, von Weizsäcker's neo-Austrian approach, Summers's New Keynesian view, vWK's Keynes elaboration, and post-Keynesian theory? It cannot be fundamentally wrong, because what unites these approaches is that all of them respect basic macroeconomic and financial stock and flow accounting relationships, irrespective of the respective theories about what precisely determines the behavioural equations in the models, the equilibrium and the adjustment towards it. That is why all these approaches come to the conclusion that if the private sector wants to increase its holding of net financial assets, and current-account imbalances should be avoided, the counterpart liabilities can only be issued by the government. I can only hope that, in particular, policy-makers will not only hear but also listen to this fundamental message!

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