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DEBT AND ASSETS

FROM A MACROECONOMIC PERSPECTIVE

What differentiates a national economy from an individual economy?

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IMPRESSUM

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EXECUTIVE SUMMARY

The model of a thrifty housewife as the prototype of sustainable domestic bookkeeping is a familiar one. Indeed, the thrifty housewife does everything correctly when she takes care not to spend more than she earns, thus ensuring she does not live above her means. The situation, however, becomes more difficult when many households follow the same rule. In the national economy as a whole, the thrifty housewife can only succeed in her model of living if at least some other households spend more than they earn and become indebted, i.e. live above their means.

Each household can only earn interest on its savings if another economic sector borrows money and becomes indebted but at the same time makes enough profit with the borrowed credit to service the interest and repayment costs. If this is not the case no interest can be generated. The amount of financial assets of one side is always exactly the same as the debt of the other side.

Looking at this from a global perspective, a country can only reach an export surplus if at least one other country has a matching deficit. The attempt of all countries to achieve a surplus simultaneously will fail because the trade balance sheet of the global economy is always zero.

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Part 1 - DEBT AND ASSETS OF INDIVIDUAL ECONOMIC SECTORS

The individual household and business

An individual economic entity is obliged to cover all of its expenditure from its income. It is rational for it to generate a surplus of income in order to accrue savings to cover larger expenses and as a buffer for bad times. Financing expenditure with credit is only considered an option in order to finance investments that will provide future revenue (or cost reductions) or to pay for consumables that have a long-term use and where the loan can be safely serviced by the regular income.

If individual economic entities, whether a business or a household, stick to these rules, not only are

they doing the right thing, they have no other sustainable way of surviving. It is therefore not surprising that credit-fuelled consumption is seen critically. Whilst it does not have immediate costs, it only offers a short term or one-off benefit and is tied to future costs.

In addition to the argument that credit-fuelled consumption encourages wastefulness, such consumption is also seen as burdening future generations. Debt-financed consumption is associated with a waste of money and living above ones means. The avoidance of debt is not only

correct from a microeconomic perspective; it is also considered morally superior, meaning that the concept of a debt-funded deficit generally gets a negative reception.

Despite the ostensible moral superiority, an individual economy which wants to invest its surplus to gain interest needs another economic

entity as a sound debtor. What is curious is that the investment of a financial surplus to increase wealth is considered morally good, despite the action requiring an economic counterpart going into debt. One and the same economic action is considered moral on one side and reprehensible on the other.

Debt and assets in all economic sectors

To illustrate the interaction between economic sectors, the economic entities within a national economy will be considered. For simplification purposes this is a closed national economy with no foreign trade.

An individual business can increase its profit if it succeeds in maintaining its income whilst reducing its expenditure. If all businesses in a (closed) national economy simultaneously try to increase their profit margin by cutting expenditure it would necessarily lead to an equal cut in income. The combined income and expenditure in a national economy is always identical. What a single economic entity can do successfully, that is, maintaining income whilst cutting expenditure, is not possible for the national economy. In the national economy the overall income can only increase if concurrently the overall expenditure also increases. If overall expenditure does not increase, then a single entity can only increase its income if it takes market share from other entities. For the overall national economy however it is a zero sum game.

One of the fathers of social market economy in Germany, the economist Wolfgang Stützel, explained this with the mechanism of the balance

of payments systems (“Saldenmechanik”) in 1958. He divides his economic analysis into ‘partial’ and ‘global sets’ (Partial- und Globalsätze). The ‘partial set’ only applies to the single economic entity whilst the ‘global set’ has explanatory power for all economic entities within a national economy. However, linking a ‘partial set’ directly to a ‘global set’ risks confusion.¹

The confusion is also found in the belief that all economic entities can simultaneously run a surplus, which they can invest in order to generate more wealth. If all economic entities seek to invest their money to generate interest, there must be an equal amount of willing debtors to borrow said money. For these debtors it must be economically viable to finance current expenditure with credit and be able to service the interest and repayment costs with their regular income. Every creditor that seeks to create wealth with their surplus is dependent on a good debtor. If there are too few economic entities looking for credit due to a lack of profitable investment opportunities, the investment opportunities and interest rates sink. A right to interest payments can therefore not exist. Interest can only be paid to the creditor if there is a debtor who can generate interest from his or her current or future income.

¹ Stützel, Wolfgang; Saldenmechanik, Tübingen 1958 (translated title: Balance of Payments Mechanism)



Part 2 - THE INDIVIDUAL NATIONAL ECONOMY

Debt and assets across households, government and business sectors within a national economy

Analogous to all individual economic entities, a closed national economy can be divided into private households, businesses and the state. Again the mechanism of the balance of payments principle applies: for every income surplus in one sector, a deficit of the same size must exist in a different sector. The balance of all sectors is always zero.

Within a state, private households traditionally spend less than they earn whilst businesses have taken these savings in order to finance their

investments. In the last decades the state has usually ran a deficit, which it has balanced out with debt. The deficit sectors, businesses and the state, have enabled private households to create wealth with their savings. Loans by the state (often through the provision of life insurance) have been a popular investment for private households. But since many states now seek a surplus in order to fulfil their self-imposed debt breaks, this investment opportunity has decreased.

Many businesses are currently also very reluctant to expand their investments, and an increasing portion of their investments is made with their own capital resources, meaning fewer instances where they play the role of debtor. This makes it difficult for households to invest their savings securely and at a good interest rate. The attempt of all sectors to achieve a surplus makes economic performance drop to the level of the remaining expenditure. This effect will not be countered by increased investments stimulated by the expectation of a drop in interest rates. Because when there is no demand, even at very low interest rates, there is no demand for expanding investments.

The microeconomic level aim to achieve a surplus is impossible on the national economy level if it is the goal of all economic sectors simultaneously. Because the total balance sheet of all economic sectors is always zero, it is impossible for all sectors to save at the same time. Every surplus must be balanced by an equal deficit in a different sector. The only conceivable option is for all sectors to continuously balance incomings and outgoings. However, even then every saver requires a debtor.

CASE STUDY: DEBT LIMITATIONS

Thrift as opposed to wastefulness is seen as correct in microeconomics. In macroeconomics, on the other hand, thrift can also mean wastefulness, if available productive capital and labour are not utilised. The consequences are particularly serious if the lack of borrowing leads to a failure to invest in infrastructure maintenance. This becomes a wasteful decision further down the line when the necessary infrastructure maintenance requires more technical efforts at a correspondingly higher cost.

Cuts to education, which lead to lower abilities and productive capabilities, are similarly wasteful. Austerity measures that superficially appear to unburden future generations because they require lower interest payments actually

lead to lower productivity and less prosperity. Future generations are thus not unburdened but burdened.

Financing sustainable infrastructure investment with credit will benefit future generations. Therefore it is fair to spread the investment across many decades. Future interest payments reflect the future interest income. Between the generations there is no redistribution. This only arises when the creditor (receiver of interest) and the debtor (the tax payer who pays the interest) are from different sectors of the society. With political will, redistribution through taxation can correct this.

State debt as an offset to state wealth creation

The state indebting itself to private economic entities is usually viewed critically. There are however situations where this can be seen as sensible. With fluctuating aggregate demand it can be necessary to compensate this fluctuation with an increase of debt-financed public expenditure. Even in economically stable times it can be prudent for the state to finance a constant part of its expenditure through credit from private economic entities.

If the state accepts money from citizen's savings to use for public investments it should finance additional infrastructure (e.g. in education, health

service and sustainable energy and transport systems) that would then also benefit future generations. Interest costs for future generations are defensible so long as they are within the frame of nominal growth rates.

Public expenditure initially – through social transfer payments for example – increases consumption demand. This has a positive effect on investments. Investments are only feasible for businesses if the products created with that investment are sold. Thus an increase in consumption is always the foundation for the success of expansion investments.²

The limits of state debt with private economic entities

An interest rate that balances the inflation rate and is slightly positive in real growth terms does not pose a substantial challenge to the state indebting itself. Because as long as the nominal growth (and the corresponding tax income) does not lie below the interest rate of the state debt then the interest payments will not lead to an increase in the debt-to-GDP ratio. Domar already made this fundamental connection between nominal growth and interest charge in 1944.³

A sustainable state debt is when the ratio of interest payment to GDP does not increase.⁴

The connection also highlights the limitations of sustainably managed state debt. If the nominal growth rate drops below the interest rate for a longer time period (and with that the tax income to pay the interest) then the debt-to-GDP ratio will increase. A sustainable macroeconomic and sensible state debt can quickly become a permanently increasing debt with ever increasing interest rates.

Here the intervention by the Central Bank is important in keeping the refinancing interest rate at a sustainable and stable level.

² Keynes already noted this key fact that every investment eventually simply serves the purpose of consumption. The strict separation of consumption and investment typically found in macroeconomic analysis often misses the interdependency of these two. See Keynes, John Maynard; *The General Theory of Employment, Interest and Money*, Macmillan, London 1936 (1964), p. 104.

³ Domar, Evsey D.; *The "Burden of Debt" and the National Income*, in: *American Economic Review*, Dec. 1944, Vol. XXXIV, 4.

⁴ Jan Prieue puts Domar's thoughts on sustainable fiscal policy as follows: According to Domar (1944) the sustainability of state debt can be achieved if the interest payments remain constant for the taxpayer. This is even achievable with permanent deficits if the state interest payments do not increase faster than the GDP, in other words if the debt-to-GDP ratio remains constant. See Prieue, Jan; *Fiskalpolitik in der Europäischen Währungsunion – im Dilemma zwischen Konsolidierung und Stabilisierung*, WSI Mitteilungen, 05/2002, S. 273 ff. (translated title: *Fiscal Policy in the European Currency Union – the Dilemma between Consolidation and Stabilisation*)

Government bonds as a safe investment objective

The regular availability of government bonds as an investment objective is of high importance for private pension schemes. Without sufficient availability of such bonds many institutional investors – often also due to regulatory requirements – cannot fulfil the terms regarding the security of the investments. In contrast to the impression often gained from the media and politics that state debt must be entirely reimbursed, it is important to note that a significant amount of debt should not be paid back because it acts as a ‘revolving state debt’ which is needed as a secure investment objective.⁵

The stabilising effect that state debt has in its role as a secure investment is often overlooked. There can be no wealth creation without debt. It does not make sense to support wealth creation whilst opposing the most reliable form of wealth creation – the purchase of government bonds – by demanding the reduction of state debt.

⁵ The term ‘revolving state debt’ means that the state pays back an expiring bond whilst at the same time taking out a new loan. As a rule the new creditor will be the same as the old one. This is because this creditor has to find a debtor to invest his surplus from the repayment on the old loan. Changes only occur in the amount of interest rate charged.





Part 3 -

FOREIGN TRADE: VIEWING THE NATIONAL ECONOMY IN MICROECONOMIC TERMS

How do trade imbalances arise?

A state – like an individual – can have higher incomings than outgoings if it achieves a surplus in its trade balance.⁶ This is only possible as long as other states are prepared to run a corresponding deficit in their trade balances. It is not possible for all countries of the world to simultaneously run a trade surplus.

Globally the same fundamental rule applies as discussed above: the balance sheet of all surpluses and deficits is always zero. If a country (or rather its companies) exports more than it

imports, it will receive foreign currency that it (its central bank) cannot create itself. This income of foreign exchange can be used to pay for a future import surplus.⁷

Wealth is created just as it is in an individual economy when income is above expenditure. The important difference is that wealth in a foreign country is invested in that country's currency.

⁶ Trade balance and balance of current account are distinct. However, in reality the two develop mostly concurrently, which is why for simplification purposes this paper does not differentiate between the two.

⁷ An example of this process can be found in Norway. A state fund invests foreign currency generated from oil income meaning that even in the future when oil reserves have declined, the fund can generate income in a foreign currency.

IS A SURPLUS GOOD OR BAD?

As a rule, surpluses in foreign currency are not held as highly liquid reserves but are invested in the corresponding assets of that foreign currency (e.g. shares, real estate, government bonds). Wealth creation in foreign currency does carry some risks. With fluctuating exchange rates there is always the danger that a part of the acquired foreign wealth is lost through the appreciation of the domestic currency (i.e. the depreciation of the foreign currency). The probability of this occurring is fairly high: the currency of one country that regularly runs a trade balance surplus increases in value compared to the currencies of deficit countries following the logic of supply and demand. Because the currency of a surplus country is more in demand in the foreign exchange market its price is pushed up.

When a country can export a large proportion of its manufactured goods and services it shows that it has the ability to produce these cost effectively and to a high standard. It is also a strong indicator of a well-educated work force and efficiently functioning infrastructure. To achieve export surpluses by reducing wages and cutting expenditure on social security contributions, cannot be regarded as sustainable because of the corresponding countermeasures by trading partners that must be expected.

In macroeconomics a high proportion of exports only makes sense if the same amount of imports are received. A continuous surplus leads to a permanent and unnecessary loss of consumption domestically as less is consumed than is produced and vital investments to maintain infrastructure are not made. Instead of real imports that bring a direct use, the country running a continuous surplus only receives a monetary debt claim in a foreign currency. That this can disappear into thin air as was shown all too clearly in the last financial crisis. For example, of Germany's accrued surplus of 1,257 billion EUR since 2000, 270 billion has already been lost.⁸

A permanent surplus means that the debtor country must finance its import surplus with credit from the export surplus country. Again this shows that every unit of wealth creation in one country has a debt counterpart of the same size in a different country. The balance sheet of all countries is always zero.

⁸ Klär, Erik; Lindner, Fabian; Sehovic, Kenan; Investitionen in die Zukunft? Zur Entwicklung des deutschen Auslandsvermögens; in: Wirtschaftsdienst, 93. Jahrgang, Nr. 3, 2013, S. 189 ff. (translated title: Future Investments? The Development of Germany's Foreign Assets)



CASE STUDY: HOW TRADE BALANCE DEFICITS OCCUR THROUGH DIFFERENT GROWTH RATES

Two neighbouring countries (A and B) of similar size and economic structure engage in trade with one another and have a balance of mutual imports and exports. The exports depend on the domestic demand of the other state. As long as both countries keep domestic demand growing at the same rate, e.g. at three per cent, then the reciprocal imports and exports will also increase at the same rate. The trade balance of both countries remains in equilibrium.

Assuming country A curbs its growth of domestic demand to one per cent (e.g. through low wage increases and the reduction of social spending), whilst country B continues to grow its domestic demand by three per cent. Country A can continue to increase its exports to country B by three per cent as long as the exporters hold their market shares in B. But country B can only increase its exports to A by one per cent despite its exporters holding market shares in A.

Because the exports from country A are growing by three per cent, whilst the imports from country B are only growing by one per cent, A now has

a trade surplus of two percentage points whilst country B is running a deficit of two percentage points. This is not the result of the products from country B lacking competitiveness but solely because of the different growth rates in domestic demand.

It is possible for a single country to raise its trade balance surplus if it unilaterally limits its domestic demand. This, however, only succeeds if the main trading partner can maintain the increase in its domestic demand. Similarly, countries that unilaterally increase their domestic demand also run the risk of running trade balance deficits when the trading partner does not increase its domestic demand at the same rate. This occurs even when export products are competitive. The country that curbs its domestic demand also pays a high price. The purchasing power of its citizens drops unnecessarily. The country lives below its economic possibilities. For both countries it would be better if they allowed their domestic demand to grow in equilibrium at a mutually agreed rate.



Part 4 - THE GLOBAL VIEW OF ALL NATIONAL ECONOMIES

Debt and wealth in the global economy

As a single economic entity it is possible to achieve a surplus over expenditure because one can assume that there are enough economic entities that will indebt themselves and bring the whole macroeconomic balance into equilibrium. Similarly it is possible for a single country to offset low domestic demand by achieving a surplus if other states are prepared to absorb its excess production.

However, this strategy of using an export surplus to balance a domestic weakness in demand fails when all or most countries chose to proceed in this manner.

An opinion often heard in Germany is that all countries would enjoy economic success if they emulated the German model of having an export surplus. This is in fact economic nonsense and cannot work. If most countries did try to emulate this model, the reduction of domestic demand would reduce the export opportunities of all states. The world would fall into a deflationary race to the bottom and global trade would collapse.

The need for an International Clearing Union (Bretton Woods 2.0)

The differences in trade balances do not only result from different growth rates or excessively low wages of individual countries. Globally the differing level of industrialisation between countries is one of the main factors leading to chronic trade imbalances. Poor countries without relevant industrial sectors are forced to import products that are industrially manufactured. If they do not have exportable raw materials or a large globally competitive agriculture they can only finance their imports via permanent foreign debt. In crisis situations this often leads to payment difficulties (because credit has to be repaid in foreign currency) and depreciation of their own currency.

Even the availability of raw materials and the ability to competitively grow specific agricultural products is no guarantee for a sustainable trade balance and the debt free import of essential manufactured goods, because prices of these goods are typically volatile. Catch-up industrialisation (which is also important for the implementation of most of the Sustainable Development Goals (SDGs)) is a long and arduous journey which may not be globally possible due to ecological limits.

Instead of waiting until all the non/low-industrialised countries have tried that arduous journey there is the alternative to treat the entire world as one national economic unit in which

all surpluses and deficits balance each other out. First an international currency clearing unit would need to be introduced to ensure that all non/low-industrialised countries can be supported by the comprehensive and often underutilised production potential of the industrialised countries without having to make corresponding exports. This would mean that not all countries in the world have to reach a uniform level of industrialisation in order to overcome global poverty and implement the SDGs.

The basic concept of an international clearing union to bring severe trade imbalances into equilibrium is not new. An institution was put on the table when the economic order after WWII was discussed in Bretton Woods in 1944.⁹

The plan collapsed due to national egoism. In the face of escalating problems of climate change and refugee crises it is high time to consider a modernised version of an international clearing union.

⁹ See Keynes, John Maynard; Proposal for an International Clearing Union; in: The Times, April 8th 1943. Also in: Bachmann, Hans; Die angelsächsischen Pläne für die Neuordnung des internationalen Zahlungsverkehrs, Keynes-Plan, White-Plan, St. Gallen, 1943.



CONCLUSION

Debts and assets in the global economy

In microeconomics, saving surplus income means an increase in individual wealth. In macroeconomics saving income means less generation of consumption and investment goods. Available capital equipment is wasted because it is underutilised.

In a national economy, expenditure and income always add up to the same amount. Whoever reduces expenditure also reduces income. The same applies on a global level. Individual national

economies can only maintain their export surplus if other countries are prepared to finance the resulting import surplus with credit from the export surplus countries.

The export surplus country can only build foreign wealth (in foreign currency) if the deficit country/countries are willing to be debtors. The balance of all global wealth and debt is - exactly as within an individual national economy – always zero.

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The World Future Council consists of 50 eminent global change-makers from governments, parliaments, civil society, academia, the arts and business. It works to pass on a healthy planet and just societies to our children and grandchildren with a focus on identifying and spreading effective, future-just policy solutions. Jakob von Uexkull, Founder of the "Alternative Nobel Prize", established the World Future Council in 2007. It operates as an independent foundation under German law and finances its activities from donations.

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