Saving, investment, debt and the transfer problem

by

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Introduction

Since the beginning of the new century, much ado has been made about a drying-up of net private capital flows to emerging market economies. In 1996 the total net inflow[1] of capital to the emerging market economies amounted to 80 billion US-Dollars with private flows reaching 200 billion Dollars. In 2000 the figure for private flows had been falling to 20 billion US-$ and the overall flows - including the accumulation of international reserves in developing countries - had turned around with an overall export of more than 100 billion Dollars. In 2003, the "poor South" exported 200 billion US-dollars to the "rich North", although net private flows to the developing world made a comeback.

The reversal of capital flows has been interpreted frequently as showing a changed behaviour of international investors in financial assets after the crises in Asia, Russia and Latin America. Many argued that international investors have become more risk-averse and that funds have been "repatriated" to the North instead of being invested where they are most urgently needed. Additionally, some observers complain that the drying up of capital flows will deprive developing countries of one of the most important means to catch-up. Low domestic savings due to a low level of real income, the argument says, can and should be compensated by imported savings.

This is the background of the growing grumbling around the world about the huge current account deficit of the United States. The richest country in the world absorbs 600 billion US-Dollars of savings annually. For many, this money could be used much more efficiently for the financing of investment and technology in developing countries, i.e. to close the perceived "saving gap" in countries with low levels of income and saving. On the other hand, the US government complains that too many developing and emerging-market economies pile up huge reserves in US-dollars to unilaterally peg their exchange rate to the Dollar. Would these countries allow a revaluation of their currencies, the United States would export more and import less and would need fewer savings from booming countries with abundant savings like China, India, Taiwan and Korea. Along this road, the same logic applies for the relation between the US and Europe, although growth in Europe is anaemic and investment ratios are low. Obviously, on this important field modern economic theory produces more puzzles than it solves.

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[1] Source of the data: IMF (2003). Inflow and outflow (import and export) of capital shall mean the **net** capital flow defined as net inflow less net outflow if not otherwise specified.

Based on some rather old theories, I shall argue that the capital flow theory in general and the savings gap theory in particular are flawed. Most modern inter-temporal equilibrium approaches, stressing the smoothing of consumption under conditions of perfect foresight as the main explanatory factor for balance of payments disequilibria, do not address real world problems at all. In any case, savings and investment are more than the two sides of the trivial identity (S = I), which too often is made up for a theory. If, in a dynamic setting, the determinants and the determinates of saving and investment are put in the right place, a current account surplus and the export of capital from poor to rich countries can be the most efficient way to protect developing countries against the Asian type of crisis. A Keynesian analysis of the transfer problem indicates that in a world of uncertainty, limited knowledge and fallacies of composition, developing countries should eagerly avoid net inflow of capital and, by the same token, avoid foreign indebtedness in general and the concomitant dependence on the international capital market.

The theory of saving and investment

Two arguments against the savings gap theory are obvious:
1. The net import of capital is always exactly equal to the surplus of imports of goods and services over exports. However, the equation is silent on the composition of exports and imports. Imports of a developing country may consist mainly of consumer goods. Is it then justified to call the bill for these consumer goods "imported savings"? If the "savings" imported are mainly used to buy non-investment goods in Northern markets, will this improve the country's ability to invest? More general, if the role of net capital flows is dependent on the structure of imports, the existence of a net flow doesn't create savings proper. The US Economic Report of the President[2] has recently put it that way: "The desirability of positive net capital flows and a current account deficit depend on what the capital inflows are used for. Household borrowing – an excess of household spending or investment over saving - provides a useful analogy. Household debt could reflect borrowing to finance an extravagant vacation, a mortgage to buy a home, or a loan to finance education. Without knowing its purpose, the appropriateness of the borrowing cannot be judged. Similarly for countries, borrowing from abroad can be productive or unproductive." (p. 256)

2. The discussion about the determinants of net flows is confused by the fact that a current account deficit is not only the difference between exports and imports, but by definition, the difference between domestic savings and domestic investment (Krugman 1991,

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[2] US Economic Report of the President (2004)

Olivei, 2000)[3]. This raises difficult questions of causation. In one view, the traditional approach to the balance of payments, a set of prices on the goods market, like export and import prices or the real-exchange rate, determines the current account deficit. But how can this set of prices on the international goods markets determine the difference between domestic saving and domestic investment at the same time? If the current account balance is determined by the decision of private and public households to consume today or in the future, it is difficult to understand that the movement of exports and imports shall be determined without any recurrence to the prices of both. Obviously, in Brazil and Argentina the recent sharp improvements in the current account have very much to do with changes in export and import prices and exchange rates but much less with the decision to save more or to invest less.

Moreover, the inter-temporal approach pretends to explain the current account balance in a way that is founded by decisions on the micro level. But, by definition, the global current account balance is exactly zero at any moment of time. In which way is the micro decision of country A to have a surplus been made consistent with the micro decision of the rest of the world, for example, to have a surplus too? As we know, ultimately one of them will be forced to have a deficit. What kind of mechanism (price and/or quantity changes) enforces the adjustment of country A or of the rest of the world? This mechanism should be the focus of any relevant analysis and not a confusing twist of definitions.

Unfortunately, even the theory of saving and investment in a closed economy is, up to our times, a rudimentary one. It consists mostly of the more or less sophisticated breakdown of an identity. Let Y be the gross domestic product of a closed economy (or the world), then the whole product obviously can be split into a part (C) that is consumed immediately (in the period of production) and a part (S) which is saved to be consumed later or to be invested (I) in order to increase the product Y in a later period. We can write the product as:

$$Y = C + I \text{ or } Y = C + S$$

And we "find" what was assumed, namely that:

$$S = I$$

Hence, in an open economy, so the standard orthodox view of the last two decades, "if saving falls short of desired investment, ... foreigners must take up the balance, acquiring, as a result, claims on

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[3] Olivei even states that "current account deficits ultimately reflect a disparity between savings and investment" (p.3). But he doesn't explain the word "ultimately". The current account is, in terms of fundamental national income accounting identities, the difference between exports and imports as "ultimately" as the difference between domestic savings and investment.

domestic income or output." (Obstfeld/Rogoff, 1996, p. 1734)[4]. Or, as Krugman[5] put it: "An external deficit *must* (italics in original) have as its counterpart an excess of domestic investment over domestic savings, which makes it natural to look for sources of a deficit in an autonomous change in the national savings rate." (Krugman, 1992, p. 5).

These statements, although the "must" is justified in both cases, suggest that the identity hints to a certain causality, giving "savings" a particular and a leading role in the process. However, it is definitively wrong to squeeze any conclusion about causality out of these trivial identities. The fact that - from an ex- post point of view - a gap that has emerged between saving and investment in a single country doesn't hint to any "autonomous" decision of any economic agent in any of the involved countries. Whether the plans of one group of actors can be realised or not depends on a highly complex interaction of prices and quantity changes under conditions of uncertainty about the future. No *a priori* judgement about "desired" saving and investment in models of perfect foresight could deprive us from taking the trouble to reflect all possible outcomes and to decide about causality afterwards.

To split up consumption and investment into the consumption or investment of certain groups of actors like private households, the government or "foreign countries" doesn't add any information to the identity. It still remains a simple definition. The fact that the gross domestic product of a closed or of an open economy always can be split into one part that is consumed immediately (in the period of production) and another part which is invested immediately, leads to nowhere. To make a theory of it, we have to identify the variables determining the movements of S, C and I and in consequence the product (income) of the regional conglomerate and all its neighbouring countries under consideration. The accounting identity doesn't give an indication about the efficiency of the process leading to ex-post equality of S and I and, thus, cannot be treated as an equilibrium condition without explicitly naming the equilibrating factors and their role in the adjustment process[6].

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[4] Obstfeld, M. and Rogoff K. (1996), Foundations of International Macroeconomics, MIT Press, Cambridge Mass.

[5] Krugman, in his statement, commits the most frequently found error of the traditional reading of the identity. "National savings" can only be reasonably defined as domestic investment plus foreign savings (the current account deficit). If this is given, to say that the source of the current account deficit has to be found in the national savings rate has the same analytical content as the statement "the source of the current account deficit has to be found in the current account deficit".

[6] The typical error as regards the informational contents of the identity can be found in Ball/Mankiw (1995). They argue (p.97) that "This simple equation (S=I, H.F.) sheds considerable light on the effects of budget deficits". But here, as in the case of current account deficits, the equation has no light at all. Thus, Ball/Mankiw as well as Obstfeld/Rogoff are totally mislead from the beginning in their interpretation of what budget or current account deficits do.

Additionally, if real income is not treated as an exogenous factor but as a moving target, bombarded by unforeseeable shocks on the micro- as well as on the macro-level, it is highly questionable to search for variables "equating" saving and investment in a smooth way. That means to "solve" the problem by assuming it away. The standard assertion of many authors is a notion of the kind that..."In equilibrium, however, the world interest rate equates global saving to global investment" (Obstfeld/Rogoff, 1996, p.31). As S and I are always identical ex-post, the notion of "equilibrium", as well as the assumed equilibrating role of the interest rate, is without any informational content in a dynamic setting[7]. Applying strictly the idea of the interest rate as an equilibrating mechanism of saving and investment implies that real income (the product) of the economy under consideration is assumed to be either constant or to grow under "steady state" conditions with (exogenously) given rates. In such a model economic agents have perfect foresight and complete information about their economic environment. The explanation of cycles, shocks and depressions is, for logical reasons, outside the range of this approach.

In his "fundamental equations" in the Pure Theory of Money, which forms the first volume of his "Treatise on Money", Keynes has clarified this point. The famous equality of saving and investment is either true if the observer describes the situation of a certain economy from an ex-post point of view, or if the economy under consideration is in a state of perfect equilibrium. The latter describes a stationary economy, an economy where the real income is constant and where there are no incentives for entrepreneurs to change the existing level of activity, as the level of profits is exactly zero. In all other cases, development and catching-up included, it is not S = I that rules the course of events but an equation like:

$$Q = I - S$$

with Q as profits or losses of entrepreneurs[8]. In this world any act of individual saving, be it governments, private households or the rest of the world that keep their current expenditure below their current receipts, reduces the profits, the saving of companies.

The difference between the two models is remarkable and, unfortunately, very often not adequately reflected even in modern post-Keynesian analysis, not to mention the type of model that is usually called "neo-Keynesian approach". With profits Q being the equilibrating force between saving and investment, the world changes fundamentally and the old perfect capital market model can no longer describe it. In Keynes' own words: The Euclidian geometry doesn't apply to a non-Euclidian world (Keynes, 1936, p.16).

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[7] This is obviously a similar discussion as the one Keynes had fought against, "the classical theory of interest" (Keynes, 1936, p.14ff.). Keynes concludes that the classical theory is..."faulty because it has failed to isolate correctly the independent variables of the system. Saving and investment are the determinates... not the determinants of the system". (p.183)
[8] Keynes (1930), p.136 ff.

In a world of profits and losses, the decision to save more and to consume less does not touch the capital market exclusively. Keynes' famous decision "not to have dinner today"[9] depresses the business of preparing dinner today without immediately stimulating any other business. Thus, the economic world can no longer be explained by "utility maximisation under perfect foresight". In an environment of uncertainty about the future, the profits of companies are the main risk-bearing asset and the residual income, i. e. the income that is determined after all the contractually fixed incomes are served. Thus, the entrepreneurs "savings" fall exactly and *uno actu* by the amount that the savings of private households increase, government deficits or a current account deficit fall. With investment being unequal to savings under normal circumstances the decision to save by non-company agents or sectors cannot be analysed from a micro perspective or the perspective of one sector alone without implying grave errors.

Consider the orthodox view dealing with changes in saving behaviour: If the savings rate of private or public households rises, companies, faced with falling demand and falling profits increase their investment expenditure, they demand more capital than before. They just switch the financing of the higher amount of investment from equity (cash flow, profits) to interest-bearing loans. The mechanism to accomplish this remarkable transition is a fall in interest rates. Obviously, in this world falling current profits do not impact negatively on profit expectations, because otherwise falling interest rates do not imply a positive outcome. Comparing the situation of companies before and after the increase in the savings rate reveals the logic of the neoclassical approach. After the increase, companies can acquire the same level of profit as in a situation of unchanged consumption. But now they have to demand interest-bearing credit and to invest autonomously exactly the same amount that they would have acquired "for nothing" if private or public households would have spent as much as before. In the Euclidian logic, the case is much simpler as profits are always zero. Apparently, the falling interest rate on the capital market is the only relevant change induced by higher savings and this will lead to a smooth adjustment of investment to the new level of saving.

By contrast, in the non-Euclidian world, the intention of individuals to save more in absolute terms may completely fail because the realised future income may be lower than the income they expected at the time when the decision to save more was taken. The ratio of saving to actual income may be higher after their decision to increase the saving rate, but the absolute amount of income saved may be lower as the denominator of the saving rate, real income, may have been falling.

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[9] Keynes (1936), p.210

Additionally, and this is very often forgotten in the theoretical dispute, the normal adjustment of saving to investment is overlaid by shocks of all kinds. Interest rates may not fall despite increasing capital supply if monetary policy, as has been the case during the oil price explosions in the industrialised world, is fighting a higher price level stemming from a negative supply shock. Interest rates may even go up in a cyclical downturn if financial markets dictate higher interest rates to a developing country due to increasing risks of a default. The negative effects of falling private demand on profits may be aggravated by pro-cyclical fiscal policy in developing countries if "the markets" expect a quick reduction of public budget deficits. An overvaluation of the real exchange rate may disturb the adjustment process by forcing monetary policy to react pro-cyclically or by directly enforcing pro-cyclicality of monetary conditions.

Even if, at this stage, not much is known about the determinants of the system, the gulf separating the two opposing views is evident. If the level of real income is not a given constant, and it would be particularly absurd to make such an assumption in a development context, the Keynesian model is clearly superior to the neo-classical approach. The Washington Consensus, (for example IMF, World Economic Outlook, Spring 1995), however, argues as if there is a rational choice between the two models and it favours the neo-classical one where interest rate flexibility "replaces" the flexibility of real income:

"In one view, saving is seen as resulting from a choice between present and future consumption. Individuals compare their rate of time preference to the interest rate, and smooth their consumption over time to maximize their utility. The interest rate is the key mechanism by which saving and investment are equilibrated. The other view sees a close link between current income and consumption, with the residual being saving. In this view, saving and investment are equilibrated mainly by movements in income, with the interest rate having a smaller effect."(p.73)

This comparison is extremely misleading. "Utility maximization" in the neo-classical approach describes an entirely different objective of the society under consideration than "income generation" in the Keynesian model. Smoothing consumption in a world without investment and any kind of entrepreneurial behaviour may maximize utility in the very narrow and static sense of this model, along the consumption frontier. Maximizing utility in a dynamic setting, allowing for investment and new technological solutions, will shift the production (and thereby the consumption) frontier outwards by increasing potential output. By confusing movements along the consumption/production frontier with shifts of the frontier the comparison suggests that movements of income are as good (or as bad) as the movements of the interest rate to equilibrate saving and investment. This is just nonsense. Higher (growth rates of) real income is the main target of economic policy in all countries of the world, and especially in de-

veloping countries. The "instruments" of a change in real income and a change in the interest rate can only be seen as alternatives if it is assumed that the growth rate of real income is anyway given (exogenous) and cannot be influenced by any kind of entrepreneurial activity. But then the whole comparison is useless from the beginning.

If (the growth rate of) real income is not given, and how could such an assumption be justified in a development context, economic policy attempts to improve the growth performance are not in vain and the IMF approach is beside the point. The market does not automatically deliver positive and stable growth rates of real income and catching-up. Thus, the "old" view, highlighting the chance to gain a temporary monopoly rent by pioneering investors, is still relevant for the development of the system as a whole. The "modern" approach, putting the decision of consumers to "smooth consumption over time" under conditions of perfect foresight into the limelight, offers an elegant dynamic version of the old Walrasian market clearing, but doesn't comprise any perspective for development.

It is perplexing to see that much of the mainstream academic treatment of the development problem dismisses the dynamic approach by confusing it with an awfully diminished static Keynesian theory. Ros (2001, p.8) puts it very clearly that "we should not confuse these development problems with the effective demand problems on which Keynes focused. Not much is lost, for example, by assuming Say's Law when looking at income differences across countries... "…differences in resource utilization account for a very small fraction of the large gaps in income per capita across the world"[10]. Obviously, in a statement like this exactly the wrong question is asked. It is not the difference in income *per se* that has to be explained, but the ability of countries to enter a process of self-sustaining growth and the inability of others to trigger such a growth process. The result of these dynamic processes will be catching up or falling behind.[11] To take the validity of Say's Law for granted and to analyse development processes as if saving would always smoothly adjust to investment means to assume away the most demanding of all economic problems and to fail right from the start.

Flexible prices versus flexible profits

As shown above, the fact that saving and investment are equal ex-post (not "equilibrated by a market price") is not important at all for the dynamics of the market system. With the movement of income being the main target of all the different agents in the economy, investment plans exceeding saving plans should be the most normal constellation. In other words, even with the private incentive to "thrift" left unchanged, the economy as a whole may expand vigor-

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[10] Ros J. (2000), Development Theory and the Economics of Growth.
[11] The same confusion can be found in the works of many early development theorists like Lewis and Nurkse, see Ros, (2001), p.7.

ously. In this case, the "savings" corresponding to the increased investment are generated through investment. Increased investment stimulates higher profits, as temporary monopoly rents of the company sector rise. These profits provide for the macroeconomic savings required to finance the additional investment. In this view..."the departure of profits from zero is the mainspring of change in the ... modern world... It is by altering the rate of profits in particular directions that entrepreneurs can be induced to produce this rather than that, and it is by altering the rate of profits in general that they can be induced to modify the average of their offers of remuneration to the factors of production."[12]

Basically, the orthodox approach argues the other way round. Neoclassical theory expects shocks from trade or technology to be buffered by a flexible reaction of prices or wages, whereas quantities react less or even remain constant. Profits do not respond to shocks as the system of perfect competition - by assumption - is always steered so as to avoid any change of profits. That is why increasing imports from developing countries in certain branches and firms just forces wages and unit labour costs in the North to fall and thus prices of products to adjust to cheaper imports. A rise in unemployment can only be avoided by stretching the wage structure between workers of different skills and between branches and firms exposed to the new competition and those who are not.

However, in a world of uncertainty and of permanent deviation from the ideal of perfect competition, shocks on the goods and the capital market lead to quantity and profit adjustment rather than price adjustment. If labour is mobile or wage negotiations are centralised, the labour market is ruled by the (Ricardian) law of one price, which means that wages of different skill groups are an exogenously given variable for each single company. In this world, companies compete by differing productivity performances, given the prices for labour, capital and intermediate goods. An innovation or a new product, as a rule, triggers a relative fall of unit labour costs in the innovating firm. The lower cost level may be passed on into prices, increasing the company's market share or directly increasing the company's profits with unchanged prices[13].

In such a Schumpeterian world (Schumpeter, 1912), the response of quantities and of profits doesn't reflect pathological (Keynesian) "inflexibility" of prices and wages, but introduces the main ingredient of real world market systems, namely the fight for absolute competitive advantages. In its inter-temporal dimension this fight is about the combination of higher productivity with given wages. In its international dimension it is about the combination of lower wages with the given high productivity. The dynamics of this

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[12] Keynes (1930), p.141. This is the position UNCTAD, in its Trade and Development Reports, has called the "profit-investment-nexus".
[13] See for a similar approach the so-called new Ricardian approaches in trade theory, Landesmann (2001).

process of development are characterised by rent-seeking activities of entrepreneurs. In other words, rent seeking, the pathological phenomenon in a neo-classical perspective of never ending equilibrium is the fuel for the engine of development.

Inflexibility of prices and wages on the micro-level does not exclude fully flexible wages and prices for the overall economy. The most flexible prices, interest rates for example, may never move in intra-firm or intra-bank trade but may be nevertheless extremely flexible, as arbitrage keeps them permanent on the level determined by overall demand and supply. It is with given prices, wages and interest rates only that the single company acts on a level playing field and the right incentives for entrepreneurs to gain market shares or temporary monopoly rents are in place.

If, in a world of rent seeking and differing productivity performances of companies, prices are sticky, then profits are flexible. The other way round: If prices and wages would be reacting flexibly to individual events on the company level, profits would be rather sticky. In a dynamic setting, the flexibility of profits provides the steering wheel and investment is the vehicle to drive the economy into the unknown future. In this world, the branch, a region or a nation state are not the main actors and any analysis focusing on these entities without giving room to the role of profits and the entrepreneur doesn't capture the nature of the process of dynamic development.

Modern neo-classical inter-temporal theory is not dynamic and inter-temporal at all as it assumes perfect foresight and, implicitly, neglects the role of the investment decisions of the individual entrepreneur as the genuine motor of economic development and as the main shock absorber. Modern theory, in its attempt to find a "rational" micro-foundation for the inter-temporal Walrasian model, prioritizes the decision of consumers to save or to spend under conditions of perfect foresight against the decision of the entrepreneur to invest under conditions of objective uncertainty.

The gulf separating neo-classical orthodoxy from a Schumpeterian view can be easily illustrated in the case of foreign direct investment (FDI). In a neo-classical setting, capital moves from high-wage countries to low-wage countries to exploit lower capital costs using a more labour-intensive technology in the latter. In reality, however, the relocation of production to low-wage countries in most cases takes place by moving the existing capital-intensive technology of the high-wage country to a low wage location. Thus, not lower capital costs determine the relocation, but the chance to realize a temporary monopoly rent, which is the higher the lower the wage level of the capital importing country and the smaller its overall growth rates of productivity and wages are[14].

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[14] Paul Samuelson (2004), in his new and much debated paper on the effects of dislocation of production, acknowledges that the export of high tech violates the traditional rules of free trade and questions its normative validity.

Is there a saving gap in developing countries?

The economics of saving and investment in an international context follow exactly the logic of the domestic I/S treatment. Keynes' fundamental equation ($Q = I - S$) is true in national terms as well as in international terms. In any non-stationary environment an increase in expenditure (increase in a net debt position of one sector) increases profits and an increase in savings (net creditor position) reduces profits. Whether the act of saving or of investment happens here or there, whether the beneficiaries (or the disadvantaged agents) are located in the country where the shock originated or in other countries does not change the course of events. The decision of a certain group of economic agents (private or public, domestic or foreign) to spend less out of their current income diminishes profits.

As mentioned above, one of the standard arguments in development theory focuses on the scarcity of savings (a savings gap) in poor countries. According to this view, the virtue of thrift - a positive savings rate (in relation to the expected income of the current period) – is a precondition for investment. Apparently, without thrift there are no resources available to be spared for the long-term benefit of the economy. The IMF, in a recent World Economic Outlook (Autumn 2001), argues that..."Greater access to foreign saving, associated with opening the capital account, generally leads to greater capital inflows and - if these inflows are managed properly - more investment and higher growth." (p. 155). As capital inflow can only mean "net inflow", this amounts to saying that developing countries with a current account deficit have higher growth rates of investment or higher investment ratios than countries with current account surpluses. Are current account deficits the precondition for growth and catching up?

Generally, this view is difficult to reconcile with some stylized facts. Current account deficits very often emerge in the wake of negative shocks on the goods market, for example due to falling terms of trade or a lasting real appreciation. A real appreciation directly diminishes the revenue of companies if market shares are protected by a pricing-to market strategy. If companies try to defend their profit margins, a fall in market shares, and as a rule, a swing in the current account towards deficit is unavoidable. Higher net capital inflows, which are associated with an increase of net-imports, can by no means compensate for the fall in overall profits or even help the country to invest more than before. The same logic, applied to government deficits, amounts to saying: As higher taxes with given expenditure do not have negative effects on company profits, a reduction of the public deficit by increase of the income tax will increase savings available for investment. Even most orthodox economists would agree that such an assertion is close to being nonsense.

The highly questionable neo-classical interpretation of international capital flows, however, is widespread. It has swamped much of recent economic thinking and has directly influenced a huge amount of policy decisions. The Monterrey conference on finance for development (FFD), for example, focused on debt financing as an important vehicle for mobilising resources for public and private investment in developing countries, in particular in countries with a small domestic savings capacity.

Griffith-Jones (2002) complains about the drying out of capital flows to developing countries in 2000/2001 (p.3). She states that "...capital flows have suffered a major change since the East Asian crisis". But, at the same token, she concludes "Emerging market current accounts have, as a result, also shifted dramatically, from significant deficits to very large surpluses, since 1999." The current account developments are uncritically regarded as a "result" of the intertemporal saving/consumption decision although the accounting identity definitively excludes a conclusion about causality. The drying out of net capital flows in this case is due to the fact that Asian countries after the crisis were able to exploit the sharp, real depreciation of their currencies to regain market shares in foreign and domestic markets. That has been good for profits (the saving of companies) in Asia as well as for growth and jobs in the developing world. Hence, there is nothing to complain about and no "suffering". The turnaround in the current account was the most efficient way for Asia to shrug off the legacy of the financial crisis.

ECLAC (2000) talks about "net resource transfer" associated with "current account deficits", suggesting that the transfer does not have a price. A current account deficit, even in a strict neo-classical view, is at best a temporary transfer, which has to be compensated by a negative transfer, an outflow of resources sooner or later. Moreover, in non-equilibrium world with profits, current account surpluses are stimulating, whereas deficits are depressing business activity and profits in the countries concerned. Again, in neo-classical economics it is the sheer availability of resources that counts for economic efficiency; in a dynamic view the successful fight for monopoly rents and market shares (by invention, investment and additional production) decides about economic success. FDI, for example, is not an act in which western firms generously sacrifice some of their resources for low-wage countries. Normally it is a side effect of high proceeds gained in the export business. The profits from this business allow the successful exporter to use some of its revenue to buy foreign assets. In this view, the exporter of capital is not sacrificing part of his property but is just financing the successful real transfer, which has increased his saving through higher profits[15].

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[15] Recently, the Financial Times (August, 14. p. 11), in an article on rising currency reserves of Asian countries finds that "the Asian countries have exchanged their goods for American IOUs". That is absolutely right, but is it a reason to lament about the cheap paper that the Asian countries got in exchange for their valuable goods? Consider the alternative. Without the piling of American IOUs in the Asian central banks, either private Asian firms

Benu Schneider (1999) argues in an intertemporal equilibrium model "that developing countries generally have lower (domestic, H. F.) saving investment correlations compared to industrialised countries" (p.15) and that "correlations are particularly low in the subperiod 74-76 and 80-82 following the increase in oil prices and export earnings" (p.14). Low correlation obviously means high capital mobility. Indeed, in these periods, net flows of capital to developing countries have been much bigger than in normal times. Beyond equilibrium economics, however, the analysis focusing on capital instead of goods is misleading. The oil-producing countries achieved exploding current account surpluses as their terms of trade shot up and the rest of the world, including many developing and emerging economies, suffered from falling terms of trade and rising current account deficits as the elasticity of demand for oil was close to zero in the short term.

Price shocks, the transfer problem and the Horioka/Feldstein puzzle

According to the mainstream views quoted above, the most trivial economic laws that are applied in every day politics in the developed world do not hold in developing economies. Nobody would assume that falling exports and rising imports stimulate growth and investment in the North. Usually it is seen to be the other way round: Growing exports and rising market shares are interpreted as being a success story by fuelling profits in the export sector and inducing positive second-round effects in the domestic sector. But if the emergence of a current account surplus (induced by rising exports, import substitution or an improvement in the terms of trade) has a positive effect on profits and jobs for the creditor country, the reduction of the surplus or an emerging deficit cannot have a positive effect too.

The fact that these effects are symmetric has enormous consequences. It implies that any attempt to contain the creditor position of a surplus country or any attempt of the surplus country to repatriate credited funds (on a net basis), destroys the funds. No savings can flow back. The existence of the funds borrowed to the deficit country is once and for all related to the existence of the surplus on the current account. With the end of that surplus the funds disappear. In other words, paying back international debt implies a swing in the current account from deficit to surplus. If this is to be achieved by falling imports and rising exports without a (relative) fall in the real income of the debtor country, improved competitiveness and resulting expenditure switching between traded and non-traded goods are normally necessary.

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would have piled up the American papers or the Asian exchange rates would have appreciated, depriving the countries of the chance to have profitable trade in the truest sense of the word.

Obviously, symmetry of these effects asks the creditors to accept their concomitant loss in competitiveness if the real transfer is to be successful. The missing readiness to accept this harsh truth on the side of the allies formed the core of Germany's Transfer Problem after the First World War as described by Keynes. Keynes' message was simple. The (deliberate) decision to withdraw money (net saving) from a certain agent faces an adding up problem in the overall economy. A single creditor can force a single debtor to pay a credit back without worsening his own economic position if the debtors' adjustment in terms of belt tightening (or expenditure switching by improving his competitiveness, depreciating his real exchange rate) does not touch the creditors own business. This condition is normally not given between one country and the rest of the world, as in the former German case[16].

The dominance of the goods market in these processes can be easily demonstrated in the case of oil price shocks. In principle, after an oil price shock, the oil producer recycles capital by buying more Western goods immediately or by buying them at a later stage. The latter means to credit the higher oil bill temporarily. In a rational calculation he cannot refuse to recycle capital in one-way or the other (by giving loans or to buy more Western goods in the same period). To refuse any recycling would mean to ask for immediate payment in-kind but, at the same time, to refuse the kind of goods the West offers. In this case, the incentive for the cut in oil supplies would be difficult to understand as the producer pushes for a terms-of-trade change in his favour without wanting it in the end ("terms of trade" can only be defined reasonably if there are traded - and that means demanded - goods on the import side of the oil producer countries).

Without any recycling, the oil producer would force the oil consumer in the Western world to adjust its oil consumption immediately downwards. Then there would be no fall in the demand for other goods - and the pain of adjustment (loss of utility) would be fully born by the oil consumers, whereas the oil producers' income position is unchanged (with more oil supplies left then before, but a changed con-

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[16] Microeconomics are clearly not valid between big global economic players like the US and Europe or China. If Europe or China would try to reduce the amount of savings that they provide to the US the net savings in Europe as a whole would not be increased. The withdrawal of savings from the US would just mean to loose global market shares and to experience reduced demand. In this case, savings (income) in Europe will simply be redistributed from companies to consumers without a positive net effect on overall saving or, better, on overall investment. The other way round, the traditional recipe for US action, namely an increase in "national savings" in the US is either a tautology or only to be achieved with the assistance of the exchange rate mechanism. It is a tautology if it insinuates that the US should just invest more without spending less. That wouldn't do the trick as the investment goods could still be imported. If this effect is excluded the notion "increase of national savings" has exactly the same meaning as "reduction of current account deficit". Thus, Summers (2004) is right to state that if a severe depression in the US shall be avoided "there is no mechanism through which an increase in US national savings will lead to an adjustment if … fixed exchange rate policies are maintained by a substantial fraction of… trading partners" (p. 7).

sumer behaviour or better technologies to save oil than before in place).[17]

In the case of inelastic demand for oil, the oil producer has to recycle capital in the form of demand for Western goods or to recycle it in terms of capital exports: As there is no alternative to this outcome, interest rate signals or policy changes in the oil-consuming countries are not needed to recycle the petrodollars. Once the price shock has happened, the recycling of capital is no longer a chapter of price theory or interest rate theory but a chapter of international accounting and macroeconomic consistency.

Hence, if recycling of capital is "needed", demand has already fallen and the recycling cannot help to avoid a collapse of global demand, as some observers have argued after the first oil price explosion. There can be no doubt that the increase in the terms of trade of the oil producers means a redistribution of real income if demand for oil is inelastic. The world savings rate (defined as the sum of income not used for consumption, not defined as global investment rate) has risen, as the marginal savings rate of oil producers is higher than the one (of the private households) of oil consumers, i. e. global demand has fallen. To say the recycling helps to avoid a collapse of global demand is tantamount to saying that any increase in the savings rate of private households on a global scale will not lead to a collapse of global demand if only the capital is offered on the global capital market. This, since the Keynesian revolution at least, is a disputable hypothesis.

But even if the global real income falls due to the fall in global demand, the additional capital that is available to the oil producer will be recycled to the oil consumers, as otherwise the surplus of the oil producers cannot exist (and the global current account deficit cannot be zero). The oil producer reduces supply, increases his terms of trade to increase the surplus of his revenue over his expenditure. He achieves a current account surplus (or a profit) if demand is inelastic. But, by definition, he can only succeed if he recycles his profit immediately and automatically back to the oil consumer as otherwise the oil consumers cannot have a deficit in their current account.

It is in these cases normally wrong to conclude that idle savings or capital in the surplus countries have been used to finance the deficit. It is only due to the price shock that oil producers increased their surplus of revenues over expenditure (profit), which otherwise would not have been there. Additional capital (or money) is temporarily credited to the deficit region to realise the transaction that creates

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[17] For the Western world, this kind of forced adjustment is only painful in the naive neoclassical world where preferences are fixed forever. In reality, it is just one of the day-to-day adjustments which we are used to. It may imply to wear a pullover during dinner or to avoid (anyway useless) car rides. Demand, in this case, is **forced** to become elastic. Preferences will adapt sonner or later and the loss in utility will disappear (Western people improve their health as they learn to enjoy walking or biking instead of driving).

capital in the capital-exporting countries in the least analysis. That is why interest rate differentials (higher in the deficit region than in the surplus region) or other price incentives, like the expectation of a re-valuation of the deficit countries exchange rate, may happen but are not necessary to induce the net capital flow. And that is why changes in the interest rate differentials or the exchange-rate expectations will not quickly change the direction and the dimension of the net capital flows.

Beyond oil, in any other (national and international) market, there can be temporary monopolies due to the invention and success-ful marketing of new products (productivity shocks with stable wages). These producers may be able to sell their product at a much higher margin (mark-up) then in traditional markets. The situation is then similar to oil as demand, for the time being, is inelastic. In this case, obviously, other companies may lose their surplus and compen-sate for the surplus of the pioneer. If, however, the group of entrepre-neurs as a whole is set to gain, their surplus must be recycled immedi-ately (has to be credited immediately) to their clients as otherwise the clients cannot buy more goods than before. If the "others" are not companies but countries, these countries have to adjust immediately (in terms of a change in preferences or through elastic supply of sub-stitutes) if a surplus of the pioneering (or devaluing) country is to be avoided. Again, if this is not the case, the surplus has to be recycled immediately to allow for the existence of the surplus.

In other words, if a region or a country like Latin America faces a sharp, real revaluation like the one from 1985 to 1995, the concomitant net inflow of capital should not be interpreted as a sign of strength or as the result of a decision of western investors to "save" in favour of Latin America. A sign of strength could be an inflow with-out overvaluation. But with the huge price movements on the goods market, the causation is given. Obviously, devaluing countries are ex-porting (net) capital to Latin America as the necessary complement of their success on the goods market, and not as autonomous resource transfer. In all of these cases: Outside observers should not complain about the negative effects of the overvaluation and praise the net capi-tal inflow at the same time.[18]

The deliberations in this paper explain a problem that has puz-zled economists for decades now: The fact that the current account

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[18] McKinnon (1984, p.14), as quoted in Krugman (1992, p.15) has argued that "With smoothly functioning capital markets, little or no change in the 'real' exchange rate is neces-sary to transfer saving from one country to another". Krugman comments this as follows: "What is wrong with this argument should be immediately clear. It confuses the question of whether a change in the savings rate will be reflected in a change in the distribution of world expenditure with the question of whether a change in that distribution necessitates a change in relative prices. The latter question is a question about goods markets, not capital markets." In the light of the arguments made above, it should be clear that even more rele-vant than Krugman's point is the causal nexus in a world where "a change in the distribu-tion of world expenditure is *caused* by a price shock on the goods market".

surpluses or deficits of regional conglomerations of private households, companies and a government sector are small. These balances, "a country's savings" in the terminology of the neo-classical approach (Obstfeld/Rogoff, p.162), tend to be close to zero because they indicate pathological developments and not a normal allocation of capital on a global scale. However, as mentioned above, the "national savings" terminology is extremely misleading because "countries" do not act economically at all.

Countries, at least those at a similar stage of development, consist of the same groups of actors as other countries and the world as a whole. Each unit of these groups has, to survive in the market, to preserve its competitiveness in the whole free-trade region, whatever the national borders may be. Given a more or less equal distribution of the groups inside the national borders will, as a rule, *a priori* help to avoid huge and sustained surpluses or deficits of the geographical conglomerations because that, as a rule, would imply a gain or loss of competitiveness or a permanent "living beyond or below your means" of many units of the region. But this is prevented by sanctions of the financial system on the micro level (hard budget constraints, Chapter 11) and financial crises on the macro level, which are well known to everybody. [19]

Thus, huge swings or persistent saving or dis-saving of regions are usually the result of some pathological phenomenon. They can be due to discrepancies emerging between countries as a result of long-lasting divergent policy interventions (too expansionary or too restrictive policies and their effect on internal absorption) or as result of huge swings in the competitive position of a region (e.g. overshooting nominal exchange rates). The normal outcome, excluding policy interventions like interregional transfer systems, will be a more or less balanced "budget" of any region in a free trade area because dissaving or saving "of the region" have been the result of maladjustment or the adjustment following a shock. The fact that slope coefficients for industrial countries' national investment and saving rates are close to 1 just show that there is usually the need to adjust sooner or later on the level of households and companies.

This fact, i.e. what is, according to the above reasoning, the normal outcome, has been - after the publication of a paper by Horioka and Feldstein (1983) - the basis of many misleading speculations concerning international capital mobility. Feldstein/Horioka argued that the high slope coefficient is evidence for a rather small mobility of capital or restrictions for capital mobility, even in the group of in-

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[19] The modern treatment of PPP (for example in Rogoff 1996) lacks understanding of the most important interactions between the capital market and the goods market. PPP is not only important as a norm to trade relations and to provide a basis for exchange-rate changes with a minimum of distortion of free trade. Its main importance is the guidance it can give to currency adjustment that does not violate the equilibrium conditions on the capital market. See Flassbeck (2001)

dustrial countries, as otherwise capital should be free to move and "...to seek out the most productive investment opportunities world-wide" (Obstfeld/Rogoff, 1996, p.162). This is a fundamental misunderstanding. It is just the other way round: The more similar in their structure and the more open the countries under consideration are, the smaller will be the net movements of capital (the balances) between them and the more efficient will be the adjustment to any kind of shocks. The "country" is only a category of importance in the markets and for economics as well, if we are dealing with huge interventions into the market by national governments or by other regionally contained (idiosyncratic) exogenous shocks.

Debt sustainability and the transfer problem

Under the conditions described above, the challenge of foreign debt in developing countries appears in a new light. There is widespread agreement now that developing countries are not able to raise loans in their own currency (sometimes referred to as "original sin") but have to denominate this debt in foreign currency. Foreign debt in foreign currency in developing countries is a mixed blessing. It generates the need to earn foreign currency on a net basis, i.e. the need to generate international currency to pay interest and main redemption.

This, however, is not directly related to the traditional debt indicators like a country's ability to grow or to broaden its tax base, hence, to policy instruments available on the domestic level. Even an export/debt ratio is inadequate to measure the (potential) ability to pay back because booming exports are not sufficient to generate reserves if import growth outpaces export growth. The ability to generate international money can only stem from surpluses of export revenues over expenses for imports, i.e., from current account surpluses. Ultimately, net foreign debt is always debt in internationally tradable commodities and has to be repaid in terms of commodities and in nothing else.

Given this, accumulation of foreign debt is easy to understand. Huge and lasting current account deficits are - by definition - at the bottom of all kinds of indebtedness. However, current account deficits do not always indicate a pathological development. Indeed, in some cases current account deficits are the result of pathological phenomena, like the loss of competitiveness on an economy-wide scale (long-lasting overvaluation or a revaluation shock). With many domestic companies losing market shares, the accumulation of debt on the level of the nation as a whole cannot be sound policy. But if a country is growing much faster than its trading partners, the concomitant import surge and eventual current account deficits may be acceptable temporarily.

These considerations are of some importance for the analysis of foreign debt sustainability (DSA) which is given much weight in

the policy to fight poverty and to reach the UN's Millennium Development Goals. A number of conclusions are obvious: Firstly, the analogy of sustainable foreign debt with calculations of sustainable government debt is fundamentally misleading. The former case deals with the question how international money can be generated through various channels given any counteractive behaviour of the international community and the creditors. The latter case asks how domestically generated funds can and have to be allocated and redistributed by the government and how counteraction by the private sector can be avoided. Secondly, if foreign debt is the result of negative exogenous shocks, it cannot be made sustainable by measures short of creating a symmetric positive shock. This means that the attempt to measure debt-sustainability in any general terms (based on forecasts of international institutions and without a thorough analysis of the *causes* of the indebtedness) is highly questionable and will, as a rule, lead to nowhere. Basically, in most cases debt sustainability analysis is the same exercise as crisis-prevention analysis, namely to define conditions that may help to overcome the effects of idiosyncratic shocks.

The political conclusions of the Keynesian approach presented here are straightforward: If price shocks and the resulting capital flows are closely related, the conditions for debt repayment of developing countries and for "sound economic policies" in general have to be reconsidered fundamentally. Firstly, it is not justified to encourage developing countries to uncritically open their capital markets and to run huge current account deficits to close their "savings gap". Secondly, it is by no means sufficient to offer the traditional panacea of "open markets for products from the South" to avoid rising indebtedness and to allow for a smooth repayment of accumulated debt. Once big shocks on the goods market have occurred, the creditor countries have to offer much more, namely, they have to allow the penetration of their markets, the loss of market shares in favour of the debtor countries and a full turnaround in current account balances. This approach, obviously, is much more demanding for creditors than just to "give access to their own market".

On the other hand, the South has to monitor and to preserve its overall competitiveness, particularly if the current account is in danger of turning into a deficit. If overvaluation happens or looms developing countries need the policy space to revert its effects, which, in many cases implies multilateral assistance to achieve an orderly depreciation (UNCTAD, 2004). Moreover, creditor countries' policies of taking up the challenges of globalization by strengthening their own competitiveness by all means against the low wage countries, is in direct contradiction to the notion of "open markets" as a relief for debtors.

On the positive side, if creditor countries realise that the repayment of accumulated debt implies grave negative consequences for their own economic performance, their bias towards easy forgiveness might be strengthened. The strict logic of the transfer problem implies that the creditor country faces a trade-off between insisting in the debt

repayment and the concomitant loss of market shares for the benefit of the debtor or writing off the debt and keeping the market shares. Foreign debt of a country and its success or failure on the goods market cannot be dissociated – either ex ante or ex post.

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