WORLD FINANCIAL SYSTEM IN BALANCE

CRISIS AS A CHANCE FOR A SUSTAINABLE FUTURE

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EXCERPT FROM THE BOOK

The World Crisis as a Chance

Globalisation, Wealth and the World-Wide Financial and Fiscal System

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I. Globalisation: Sketch of the overall problem dimension

The most important aspect of globalisation is the increasing number of people living on the planet[1]

1830	1930	1965	2000	2007	2050
1 bn	2 bn	3 bn	6 bn	6,8 bn	ca. 10 bn

A second important aspect of globalisation is consumption. The problem behind is the amount of resources needed to produce all goods and services (expressed as gross domestic product, GDP). What is the share of environment claimed by humans today?

Currently approx. 1.2 bn "wealthy" people are consuming more than 80 per cent of all goods and services. If our restriction would be a sustainable exploitation of the environment as the resource basis for our GDP we would need today more than one planet[3]. If all people on the planet would have the same level of consumption we would need more than five planets[4] – given our today's technology. We plunder the resources of the past because we abolish depots of energy (especially oil, gas and coal) which developed during several millions of years. We eliminate forms of life from our planet. Our behaviour leads to the extensive production of waste and the extinction of more and more species. We do not even think about possible consequences and whether the changing biotope will let us survive. We plunder the future because reversing the climate changes driven by our emissions of green gases will take decades if not centuries[5]. Nobody knows actually whether these changes are reversible.

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Today **5.6 bn humans** by European standards[17] **are living in poverty**. More than 10 million people, mostly children, die of starvation per year[6]. Millions of people are dying from AIDS, malaria and other infections[7]. The number of living people would actually increase even more if the 45 million abortions per year were not done[8].

This situation is not sustainable. It is not consistent with the basic principle of **human dignity** and it is not consistent with the principle of **dignity of nature**[9]. The question is: How do we deal with this obviously problematic situation? Do we think our future is predetermined or do we envisage options to control our path into the future? What are the alternatives? What should we do?

First of all one thing should be clear: If we spurn the “dignity of nature”, if we consume more than “Mother Earth” is willing and able to provide sustainably, if we produce more waste than ecology can recycle in a reasonable period of time, the collapse of humankind will be inevitable[10]. Mother Earth cannot be forced or convinced by humans to accept more waste than she is able to cope with. So for humans there is no other option than to accept dignity of nature if humans want to survive. Actually, we are living on credit. We are not conserving nature we spurn the dignity of Mother Earth.

II. Future Options

Considering our present level of consumption and the resource efficiency of our current technology to produce goods and services, we do have two alternatives[11]to respect the dignity of nature, and thus reduce the consumption of resources :
The first is “brazilianization”[12]. This will be a world where only a small number of humans will have access to the limited resources and the derived goods and services. A considerably larger number will stay poor or become poor. There will definitely be a **two-class society** in which the principle of “equal rights for all” does not count. **Human dignity will be abolished for the majority of human beings.** What we will see is definitely more hate, violence and terrorism than today. In consequence there will be massive, even military, interventions and increasingly the building of walls and fences. The majority of us do not want this kind of future. It may, however, be attractive for “elites”. A kind of global **feudalist society**, with only a few “masters” and a lot of “slaves and servants”.

The second option is to reach a fair participation in wealth and consumption[13] whereby the production of goods and services keeps the dignity of nature intact. That means that no generation should use more resources than acceptable under the perspective of sustainability. "**Prosperity for all" – for humans and nature.** To reach that goal, we need to be able to produce much more with limited resources than today, the target being a ten times higher resource efficiency[14]. This would allow us to give more quality of living for everybody with a fair share of distribution[15]. We need growth because freezing production at its current level or reducing it and distributing this amount of goods and services evenly does not seem to be realistic[16]. "Wealthy" people would have to reduce their consumption to fifteen per cent of today's amount. They would then have to live with only one third of what we in our "wealthy nations" call "poor"[17]. In developing and underdeveloped countries people would have to abandon the right to live in a way which we have shown and promised them in the past.

III. How to reach "prosperity for all"?

History tells us that in order to be able to maximize prosperity for all, we need to educate as many people as possible to achieve the needed **maximum of creativity**. Since education is costly, health is the second prerequisite. Infrastructures for communication, coordination and cooperation are a must. A healthier public will, however, result in a growing number of older people. This poses another problem. Since we will never need ten times as much gainful occupation, even for ten times as much production, we need a "new deal" for social security. We need art and culture, and rules to keep a sound environment and biodiversity so that human behaviour is guided to respect the dignity of all living beings.

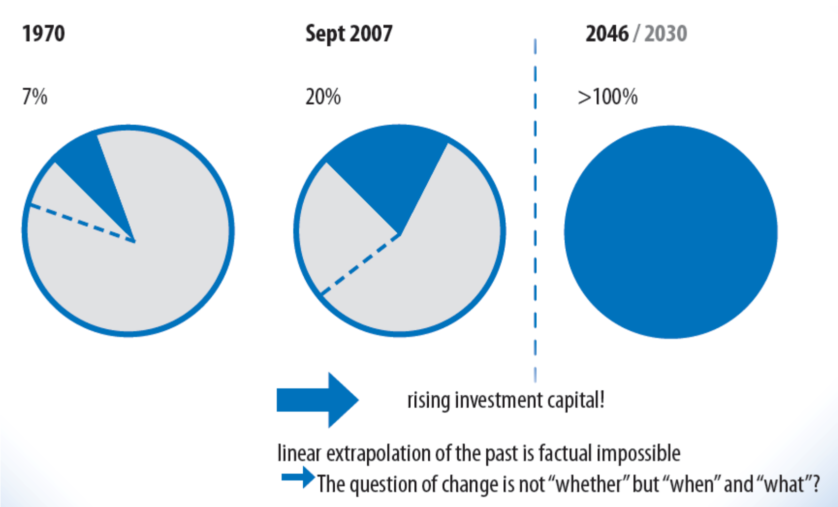
Our future basis for value creation and wealth has to be financed to a large extent by a **fair system of taxes and duties**. The fiscal system should follow the principle of fairness and economical ability, i.e. the economically powerful will have to contribute a higher share than the economically weaker members of society.

To sum up: We need **rules and regulations on a global scale** as they are already implemented in wealthy economies. The globalised economy should be ruled by the principle of subsidiarity. We need a **world-wide eco-social market economy**[18].The problem, however, is that the current rules and regulations applied to international or multi-national contracts (especially of the World Trade Organisation WTO) do not cover social and ecological rules and standards. Quite the opposite. WTO urges the compliance with quality standards but not with procedural standards. Child labour therefore is not covered by quality standards, as it is considered a question of processing.

IV. The world's financial system at its limits

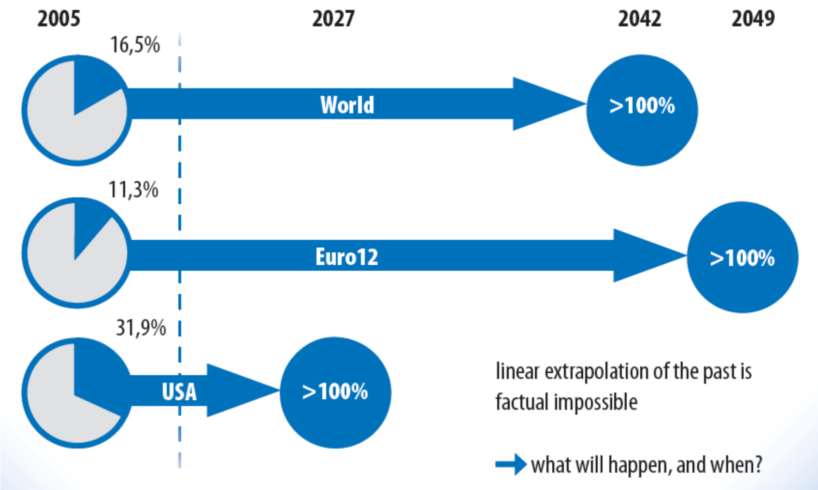
Analysing the world's financial system leads to the conclusion that the principle of market fundamentalism (free markets) which dominates globalisation, erodes the social democracies of wealthy nations[19].

Globalisation as it is ruled and regulated (or rather deregulated) currently enables the **strongest globalised actors** to **minimise their payments of tax and duties.** Earnings are transferred to where the lowest rates are applied, while the value creation takes place where the best infrastructure is provided[20]. The result is increased net profits on investments and profitable financial or tangible assets for global players, thus **reducing the income of states and public administrations.**



The total volume of financial and tangible assets increases faster than the world`s gross domestic product. As a result the share of earnings on profitable assets takes more and more income from other economic activities (especially the income on gainful employment). This is one important reason why public revenues are decreasing.

Public authorities are urged to balance decreasing public revenues by reducing public expenditures, and by privatisations thus taking on **more and more public debt**.

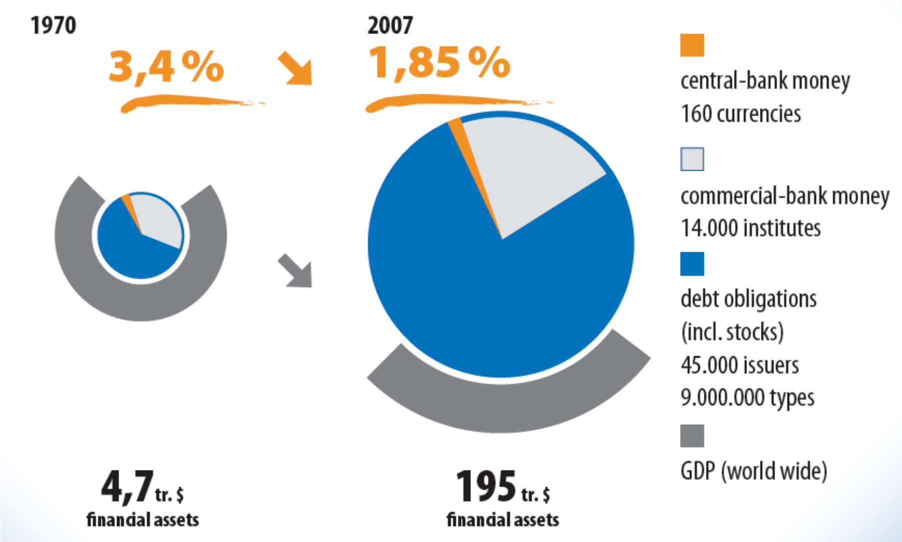


Enormous pressure on public finance (debt service/interest paid on debt in relation to public earnings

The emission of public debt obligations occurs in interplay with those who have the highest earnings but pay the lowest taxes. The deficit of “rich” nations almost equals the amount of taxes that should be, but are not paid by the most powerful actors in the globalised economy, especially the big players of the world’s financial system. The deal between them and governments (caused more by systemic reasons than negotiations) allows a few very big creditors to use so-called new “innovative financial products” for the creation of new “fiat-money” to be lent to governments. Governments as debtors will have to provide rules and regulations to ease the “collection” of this kind of money within the financial markets (e. g. possibility for securitisation, derivatives, REITs, no minimum reserve on foreign currency accounts, no equity requirements giving credits to best-rated “nations” etc.).

In return “the big players” will be an important factor to provide stability in the financial system, more or less stable currency exchange rates and will be committed to buy all public debt obligations on request. The production of “new money” is a must since the savings rate of the world is not enough to serve all needed credits.

This has led to a situation where the overall world-wide amount of financial assets is four times as high as the world-wide gross domestic product (in Europe it is five times as high). In relation to the central banks' money (M0 – currency in circulation) the securitised "claims on money" are more than fifty times as high.



Money and "claims on money"/money substitutes

The world's financial system is at its limits! The current crisis of the financial system is not surprising; it has been predicted based by analyses of the described facts and effects (cf.[19] chap. XIII). What happened and still happens is a "run out of debt obligations" and a "run into the ownership of real values" (non-financial tangible assets). There is no demand for debt obligations ("money claims"), instead there is an increasing demand for commodity futures which can be interpreted as claims on limited resources (e. g. oil and primary agricultural products). One consequence is a big liquidity bottleneck, partly asset inflation and partly asset deflation (because of fire sales to avoid illiquidity). Governments currently are reacting to this crisis without duly considering the problem of decreased public revenues and new indebtedness. This swift action may stabilise the current crisis temporarily but the overall problem scenario will further deteriorate. Insolvency of nation states comes closer. In consequence the global players from the financial sector will redistribute wealth to their accounts and redistribute losses to the general public. This could even be a strategy of some nations to reduce their indebtedness, i.e. through repatriating and taxing the earnings on the redistributed real values (cf.[19] chap. XIII.2). Such kind of strategy could even be a means to get access to the relevant and limited resources. Meanwhile one has to suspect that even sovereign wealth funds use this strategy.

The world's financial system is neither fair nor sustainable. If unchanged, the rules and regulations of today will lead our system consequently into collapse or alternatively into a brazilianization of the world. Rules and regulations will have to be changed so that everybody – and especially the economically most powerful participants of the society – contribute their fair payments to finance the basis for wealth and value creation. This is the only way to reach "prosperity for all".

V. Option for political action

To avoid both, collapse and brazilianization, a consistent order of the world financial system is needed. The corner stones consist of more than rules and regulations for the financial markets. Having the described facts and effects in mind, a consistent order has to cover at least three system dimensions:

a) the monetary system
b) the system for taxes and duties
c) sources to co-finance assimilation processes to reach a balanced participation in wealth and consumption.

To cope with the problem of the "super-money-bubble" **and** the annual new indebtedness of public authorities, we propose an additional taxation element: A duty on money and leverage creation, a VAT on financial products. We propose a tax on any form of financial products, especially debt obligations, credit contracts but also e. g. repos (re-purchase agreements). We name it **leverage money tax** (Mehrgeldsteuer) (cf. [19] chap. XIII.3). For sure the negotiation and implementation of this new tax is anything but easy. Nevertheless such a "near-chaotic" situation as the sub-prime crisis and the escalating world crisis could be a chance. When, if, not now? The core of the strategy for acceptance and implementation could be: There will only be as much intervention by public authorities as needed to stabilise the crisis in order to avert recession and react on the failure of the markets' "self-healing power" if the implementation of leverage money tax, to partly finance the interventions, is accepted.

The current near-chaotic situation opens a window of opportunity to implement ecological and social standards in the globalised markets as well. Kyoto-Plus as a follow-up of the Kyoto-Protocol to limit green gas emissions together with the social standards globally agreed within the ILO (International Labour Organisation) could be declared as mandatory processing standards within WTO. The world's financial system`s new order (money and taxation) could be negotiated as a kind of "Bretton Woods II - agreement". Leverage money tax and international harmonization of tax bases would generate the money used to co-finance the acceptance of the standards within WTO and the needed implementation and assimilation processes. This is the blueprint for a better world for all.

V.1 A global "New Deal" for overcoming the crisis

The global financial crisis is perhaps, choosing a pragmatic approach, in all likelihood a unique opportunity for a big stride towards a global eco-social market economy, capable of reuniting many aspects, and for solving the problem in its entirety: The financial system is currently being used by globally acting companies and individuals to evade adequate taxation. Substantial funds could be made accessible soon, without burdening national budgets and the middle-income sector, if we succeeded in advancing and developing the harmonization of (the respective national) tax bases. These funds – if applied properly – could be the key to a "global contract" a "global New Deal", to a seven point programme for a political solution of the global problem as a whole, and which the G20 could now launch:

1. **Environmental standards:** The window of opportunity is now open to come to a "cap and trade" approach within the current negotiations following the Kyoto-protocol, based on the principle of climate justice. A transformation process will have to be negotiated to that end, leading to equal per-capita emission rights in the medium term.
2. **Social standards:** all nation states have agreed upon the core standards of the ILO, which however – as is the case with environmental standards – are currently being undermined within the WTO framework. Child labour and pollution, for example, still constitute a competitive advantage.
3. **World economy:** A global recession cannot be prevented through national economic enhancement programmes alone, and especially not debt financed

ones! Public investment e.g. into new types of energy production or environmental technology, education and infrastructure have to be part of a global implementation process for environmental and social standards, which need to be laid down as **compulsory operational and production standards** within the **WTO**. Only then will there be an end to environmental and social dumping for the maximization of profits. That way the global market will become an eco-social market.

4. **"New Deal":** How can such a "deal" be accomplished? The answer is co-financing, in a similar way as the EU has for a long time been co-financing via the so-called structural funds, so that weaker and new members were able to implement the community law – the acquis communautaire. Such a procedure – the **co-financing of standards** – is key at the global level as well. With their implementation the Millennium Development Goals will come within reach, too.
5. **Financing:** Where will the means for co-financing come from? The answer is: from a reform of the financial **and tax-systems** within the framework of the international plan for action of the G20 ("financial markets and the world economy"), which however must not be limited to the financial sector alone. Taxation systems too need to be **harmonized**. For only then can tax evasion be successfully prevented. The step of restricting tax havens needs to be added.
6. **Balancing:** A further contribution to the financing of the implementation of assimilation processes would be the taxation of global transactions – transport, trade, and cash flows. Also a kind of **VAT on all financial products**, in order to check speculative leverage transactions by finance market agents, would be beneficial. Such a "**leverage money tax**" could be constructed in such a way that those who profit most will pay their fair contribution to the necessary tax funds, like the middle-income sector and others who are at a disadvantage anyhow, because they already have to pay higher interests, e.g. for a securitized loan (a financial product). Those who profit most should therefore make a higher contribution out of the acquired "leverage money", i.e. loans for leveraged investment and speculation. Economically less privileged agents, e.g. the middle-income sector should not be burdened further. Thus, the leverage money tax could be devised as a fair contribution capable of bringing the "super bubble" – the money bubble – under control.

7. **Financial crisis:** In direct response to the current “liquidity-crisis” the velocity of money in the financial markets has to be increased. One needs to restrict the “hoarding” of liquidity (esp. central bank money) by introducing a mandatory “**maximum reserve ratio**” (e.g. 1%-2% above the required reserve ratio).

By doing this the needs of the environment, social issues, the economy and money/ finance will be taken care of and tied together. The key points are:
First, to arrange the environmental standards within the framework of the post-Kyoto protocol negotiations, while simultaneously securing demands for alternative energies and their development.
Second, to connect the social standards of the International Labour Organization with the points held down in the Millennium Development Goals. This regards especially the areas of education for all children, food, water and health.
Third, we need to launch the necessary investments for a global implementation of these standards in order to tackle the threat of a global recession: for new sources of energy, environmental technologies, education and infrastructure in compliance with the new environmental and social standards. Such global investments are urgently needed by the global economy to successfully combat recession and avoid depression, not national programs only.
Fourth: there needs to be a global “deal” – a global contract, in which the ecological and social standards will be accepted as binding for WTO operational and production standards. And to reach acceptance to agree that the standards to become mandatory within WTO, the co-financing of their implementation has to be offered. Of course the question arises: where will the necessary means for co-financing come from?
This brings us to the fifth point: the reform of the finance- and tax systems with the special objective of closing loopholes for tax evasion through harmonization (of tax bases), so that those will justly have to afford the highest contribution, who have so far successfully managed to defy it.
To this, a sixth point is added: the stabilisation of the current financial crisis through measures of keeping the money bubble, i.e. excessive indebtedness, under control, through the middle-term reduction of public debts, and by restoring liquid markets. This can be achieved through a kind of VAT, on debt obligations and all other financial products. We call such a contribution a “leverage money tax”. It could be devised in such a way as to make precisely those who profit most, and who have contributed

to the crisis through their leverage deals pay more than economically less powerful agents, e.g. the middle-income sector, which already has to pay higher interest rates for loans taken up.

In order to restore the liquidity of the markets, as a seventh point a kind of “maximum permissible reserve ratio” for financial institutions needs to be introduced. All market participants should be obliged to pay in all liquidity (esp. central bank money), which goes beyond the maximum reserve, into a commonly sustained fund for which they are collectively responsible, and grant this liquidity as a loan. Debtors of the fund would of course have to meet all required criteria, e.g. solvency. Thus it would be partially up to the market participants to plead for stricter criteria if they cast doubt upon the quality of the fund. This programme should be put forward in the current G20 process “financial markets and world economy”.

V.2 Leverage money tax for controlling / managing multiplicative money creation

The setting of rules and regulations at the global level should be directed – following the principle of subsidiarity – in such a way as to rule out any unfairness between currency areas. Here, the issue of money creation and, in that context, of debt obligations denominated in foreign currencies, merits special attention. This pertains to the question with which capacities for money creation credit banks and other emitters should be invested. Also of relevance is the question whether the fixing of minimum reserves and equity requirements concerning risk assets in the way they have been organized so far constitute effective instruments for limiting money supply aggregates. Since the answer is negative, a leverage money tax, as a cornerstone of a consistent global financial order, is proposed as a supplementary instrument to the management of the amount of money. In addition, liquidity and equity directives should be extended to all emitters of money and money surrogates and also all other companies as part of internationally agreed-upon accounting standards. The aim here is to prevent the purposeful shifting or relocation of risky assets in order to evade deposition duties for liquidity and equity.

“Leverage money tax” basically means the inclusion of all financial products into the value creation segment through a tax on any kind of emitted debt obligation or loan granted, i.e. on newly created money and money surrogates. A main justification for leverage money tax is the inflationary and instability strain induced through money creation. Such a tax would be demanded from those who burden the community by increasing the risk of inflation and instability. A further element for determining the level of leverage money tax, thereby influencing the amount of newly created money could be the resource efficiency of a currency area. If an increase in resource efficiency is achieved, innovative impulses for growth can be carried out within the corridor of agreed-upon strategies for attaining sustainability.

A leverage money tax could, in the context of the current regulation for equity deposits as laid down in Basel II, following the principle of achievement potential, be devised to be inversely proportional to the weight of risk of the loans granted (= money creation). All those who need to pay higher interest rates for loans anyhow – i.e. especially small and medium sized businesses and private households – would thus be unburdened, while those who profit most in the financial markets would be burdened.

One intention of the leverage money tax would be the creation of an instrument for control, regulation and management of the amount of money understood in broad terms. The amount of money regarded should include all credit money and all forms of money surrogates. Therefore, the leverage money tax should be devised as a duty on all certified securities (including shares) and all contracts having the character of a loan (e.g. derivates, forwards and RePos). The tax could be levied via security settlement systems (management of securities in depositories), via global custodians and other custody service providers. When all liabilites are included – which, at the end of the day, are summarized on the passive side of the balance sheet – the tax can also be registered and managed in the context of the tax return. Details will depend especially on the way in which an obligation for registering emissions – and such like – can be implemented.

As a further detail it should be considered whether specific types of loans should be exempt from taxation, e.g. concerning indebtedness of the national budget. One could argue that the interest paid by a government increases, if these loans were also burdened with leverage money tax. However, this could be compared to value-added tax, which also needs to be paid by public authorities. Ultimately, this tax is at the same time a revenue for the public authorities, and therefore neutral.

In addition, a leverage money tax which is also applied to borrowing public authorities would have a positive impact on efforts for convergence e.g. within the European Union, but also globally, if it were used as a financing instrument. For then highly indebted states would have to pay a higher contribution than less indebted ones, even if their economic capacities were equal. The contribution would therefore also take the respective economic capacity into account (derived from the rating of each state). Something similar would hold for a global levy for the co-financing of development, in order to attain the acceptance of ecological and social standards in international regimes by developing countries (e.g. also in view of the urgently needed limitation of greenhouse gas emissions in order to mitigate the climate problem).

V.3 Financial markets liquidity: limitation of "liquidity-hoarding"

An acknowledged problem in the global financial market is the effect of self-enhancing processes concerning "cash hoarding" of liquid central bank money, or of short-term debt obligations (e.g. treasury bills) in concentrated form. The global economy still finds itself in a situation in which a small number of institutional investors control huge volumes of the total global financial assets. In addition, these institutional investors are the most important shareholders of all financial institutions. These financial institutions, in turn, control a further large portion of the global financial capital. This entanglement combines the actively invested capital of the large actors, the actively managed "capital". Furthermore, additional volumes of all financial assets are also "under custody", i.e. they are being administered as a sort of extra capital by these actors. A change of the investment strategy of only a few of those large actors, e.g. with the goal of an increased cash management concerning central bank money can lead to central bank liquidity within the global financial system being "parked" only in a few places, i.e. financial institutions. While the system is not thereby deprived of its liquidity, liquidity becomes inactive, and is no longer available to others (e.g. credits in the interbank market). Conversely, a further change of strategy, e.g. in the form of high volume purchases of real assets, can also lead to an especially high central bank liquidity in the market.

This field of problems can be addressed by prescribing not only a minimum required reserve ratio, but also a "maximum permissible reserve ratio" to those institutions of the global financial system that hold central bank money or do have access to central banks facilities. Any “surplus liquidity” should be made available for lending to other financial institutions that are short in liquidity. The credit risk could be taken partially by public surety ship if the installation of a leverage money tax was accepted. This would in principle be similar to the intervention via national governmental guarantees for interbank credits in the context of the global financial market crisis. However, since government guarantee means that the general public incurs liabilities, it would be more appropriate within the framework of an international arrangement to demand of all financial market participants a contribution to a “liquidity assurance fund”. Once a previously arranged “signal reserve” (which could lay e.g. 1%-2% above the minimum required reserve ratio) is attained, any liquidity that goes beyond would need to be transformed into fund shares (i.e. bonds that are securitized ultimately by all financial market participants together). The common fund would thus permit directive interventions through the granting of loans in the event of an “unbalanced” distribution of liquidity. Thus, all actors would be confined by the same boundary conditions, and the market would have to collateralize the entire “leverage risk” by itself. The participants in the finance markets would then in their own interest want the legal requirements to financial institutions (which of course can be creditors of the common fund) being such that non-payment risk becomes minimal.

In combination with the **leverage money tax** this procedure would effectively alleviate and eliminate the current crisis.

Notes and references

1. Kapitza, Sergey P.: “Global Population Blow-up and After”, Report to the Club of Rome and the Global Marshall Plan Initiative, Hamburg 2005. In this book the so-called “quadratic principle” is described. In short this principle says that a doubling of the number of people living will result in quadruplicating the innovation speed needed for the people to survive. That makes the current situation so different from the past. The innovation speed is already as fast that people have to change their behaviour during lifetime. A higher innovation speed would result in the need of multiple changes of the behaviour during lifetime. In the past that has never been the case. Earlier generations were able to prepare the change but only the next living generation had to adapt. Today innovation speed is also a problem from the economic point of view. Amortisation cycles of three or four years are too long if innovation speed is faster and equipment has to be replaced by new equipment within shorter time intervals.
2. Neirynck, Jacques: “Der göttliche Ingenieur”, ISBN: 3-8169-1982-0, Expert-Verlag, 1994.
   In this book the role of technology for the survival of mankind to face the problem of limited resources is described. The main point is the observation that human societies in history had grown in their surrounding “biotope” until they reached local resource limitations. Technological innovation was always a means to extend resource limitations but new technology had always negative effects that Jacques Neirynck names boomerang. New technology, even with higher resource efficiency, lead to more consumption which over-compensated the positive effects from resource efficiency. As an example: the “paperless office” increased paper use enormously. In consequence the societies had to conquer new territories. They had to expand geographically. Today no geographical extension of societies is possible without conflicts. In addition with more and more people and the given resource limitations we need more and more innovations at a speed that over-burdens our brains and our economy.
3. Here a reference is made to the principle of the ecological footprint developed by Mathis Wackernagel and William Reese: “Unser ökologische Fußabdruck. Wie der Mensch Einfluss auf die Umwelt nimmt.“ Basel 1997, World-wide data are published under www.footprintnetwork.org.
4. The film “The Planet” directed by Michael Sternberg, Linus Torrell, Johan Söderberg, 2006, explains this problems impressively. http://de.wikipedia.org/wiki/Unser_Planet
5. The world’s climate situation has been described in detail in the forth IPCC Report/AR4 SYR (www.IPCC.ch/***IPCC report***/AR4SYR) Several brief explanations can be downloaded at www.de-ipcc.de
6. An overview about “hunger facts” can be obtained online at the World Food Programme http://www.wfp.org
7. Details can be found in the report “World Health Statistics 2007” of the World Health Organisation (WHO) http://www.who.int/whosis/whostat2007/en/index.html
8. cf. “The World Health Report 2005. Make every mother and child count” of the WHO http://www.who.int/whr/2005/Archiv2005_en.pdf
9. Projekt “Weltethos” (global ethics), München 2004. Hans Küng has liberated fundamental values that could be seen as common to all religions in the world. These basic common values had been declared by the Parliament of World Religions of the year 1993. In the declaration (www.weltethos.org) it is written: “We are interdependent. Each of us depends on the well-being of the whole and so we have respect for the community of living beings, for people, animals and plants and for the preservation of the earth, the air, water and soil.” Later it is written: “We must treat others as we wish others to treat us. We make a commitment to respect life and dignity, individuality and diversity so that every person is treated humanely – without exception.” From this perspective “the dignity of nature” encompasses the survival and

living of any kind of species. It is not only the sustainability request that following generations (of human beings) should have the same opportunities for development and consumption.

10. Diamond, Jared “Collapse. How Societies choose to fail or succeed”; ISBN 978-0670033379; published by Viking Adult 2004;
11. Radermacher, Franz Josef: „Balance oder Zerstörung – Ökosoziale Marktwirtschaft als Schlüssel zu einer weltweiten nachhaltigen Entwicklung“, ISBN: 3-7040-1950-X, Ökosoziales Forum Europa. Wien 2002
12. Radermacher, Franz Josef; Beyers, Bert: „Welt mit Zukunft - Überleben im 21. Jahrhundert“, ISBN 978-3-93017-86-9, Murmann-Verlag 2007
13. Kämpke T., Pestel R., Radermacher F.J. „A computational concept for normative equity. Europ. J. of Law and Economics, No. 15, Vol. 2,129-163, 2003“: The authors have developed a concept to measure participation on wealth and consumption. They have developed the equity concept where the equity factor describes the distribution of income in a society. Investigations have been made to relate the distribution of participation with the wealth of the society. An observation is that wealthy states have a distribution pattern where the 20 per cent richest people in a society participate in 35 per cent to 50 per cent of the overall income (GDP). The poorer part (80 per cent) receive 50 to 65 per cent of the overall income. An extreme unbalancing as well as too high equality lead to less wealth of nations.
14. Schmidt-Bleek, Friedrich: “Das MIPS-Konzept. Weniger Naturverbrauch, mehr Lebensqualität durch Faktor 10”, München 1998
15. The question is whether 10 times as much gainful occupation is needed to produce 10 times as many goods and services than today. Taken into account the needed innovation there should be scepticism that one really needs so many employees to produce the future gross domestic product. That is why one should even think about new forms of the organisation respectively the ensuring of a fair participation in wealth and consumption. One can think about concepts like “unconditional basic income” as it is proposed by Götz Werner in his book “Einkommen für alle”; ISBN 346-2037-75-7; 2007
16. Radermacher, Franz Josef, “Die neue Zukunftsformel” Bild der Wissenschaft, Heft 4/2002, S. 78-86, April 2002
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