The Future Wealth of Nations

The Real Tragedy of the Global Commons

A mechanism that can Change the World

The TAO of Finance© Initiative

Financing the SDGs (version v_19)

Development needs have primarily been financed through private sector financing, conventional public sector funding and philanthropic commitment. These sources are not sufficient in scale and speed to meet the pressing finance needs. The world community is too busy repairing, stabilizing, and refunding the system to maintain the stability of the existing system. The introduction of a parallel electronic currency specifically designed to finance global commons, and a human centered economy would provide the necessary resources to achieve the UN SDGs while stabilizing the existing monetary system.

The development of cryptocurrencies based on blockchain distributed ledger technologies has prompted leading central banks around the world to study the potential application of this approach to directly inject purchasing power without dependence on the banking system. Proposals are now being studied by an international expert group on how this approach can be utilized to finance the huge multi-trillion dollar annual investment requirements for achieving the Sustainable Development Goals, with special emphasis on investments in human resources and environmental protection. A report of the expert group will be published in 2020.

Stefan Brunnhuber, Programm Director of the WAAS Expert Group on Innovative Financial Strategies

The WAAS-Initiative "TAO of Finance"

Selected previous writings/talks:

Our Future Finance - The Real Tragedy Of The Commons - Our Future Common Wealth

1. Financing SDG's part 1+ 2
2. TED-Talk: A Mechanism That Can Change The World
3. UN-Talk: Finance-Sustainability-Blockchain
4. Latest Thinking I: The "Real" Tragedy of the Commons: Can a dual Currency System Achieve a Pareto-Superior Equilibrium?
5. Latest Thinking II: How can Psychology Help Mankind to Overcome its Greatest Challenges
6. Science Slam 2018 - Ending Poverty & Hunger for Amina Mwele
7. Federal Press Conference (german): Financing SDGs, Berlin 2019
8. The TAO of Finance' with Dr. M. Bozesan Club of Rome, 2019
9. **ONE Pager** **page 6**
10. **TWO Pager** **page 7-8**
11. **The Wealth Equation** **page 9-10**
12. **Regional Transformation** **page 11-15**
13. **Popular (german):**
    a) Was passiert, wenn nichts passiert?
    b) Parallel currencies for a better world (german, interview Bergius Tagesspiegel)
    c) Financing the Future (german, interview Leichsenring)
    d) Die große Revolution – 3sat - Scobel
    e) IHK Schwaben Interview: „Robuste Regionen gegen exogene Schocks“
    f) Evangelische Aspekte: „Das planetarische Momentum – Wie wir die Welt jetzt verändern können“
    g) Augsburger Allgemeine Interview: “Angst vor der Klimaapokalypse hilft uns nicht weiter”

14. **Working paper:**

    a) **Financing The Future**
    Brunnhuber, Stefan (2017): Financing the Future: An Argument for a Parallel Optional Currency, GLO Discussion Paper, No. 128;

15. **Study paper:**

    a) **The Real Tragedy of The Commons**
    https://stefan-brunnhuber.de/wp-content/uploads/2018/06/COPE.pdf

    b) **Overcoming the Global Trilemma: New Monetary Politics in the Anthropocene**
    http://cadmusjournal.org/article/volume-4/issue-1/overcoming-global-trilemma-new-monetary-politics-anthropocene-dani-rodrik-r

    c) **Innovative Financial Engineering to Fund the SDGs A WAAS Initiative with Garry Jacobs**
    http://www.cadmusjournal.org/article/volume-4/issue-2-part-2/innovative-financial-engineering-fund-sdgs-waas-initiative

16. **Popular (english):**

    a) **How can Blockchain technology help us to finance SDGs?**
    2018: pp: 54-57, UN Global Goals Yearbook, Partnerships for the Goals

    b) **The Curse of the Carbon Bubble: How to Really Exit the Fossil Age?**
    2019: pp: 42-51, UN Global Goals Yearbook, Partnerships for the Goals

    c) **The planetary Momentum**
    2020: pp: 17-21, UN Global Goals Yearbook, Partnerships for the Goals

17. **The Books**

    a) Financing our Future (english) in press: see amazon

    b) The Art of Transformation (german)

    c) The Art of Transformation (English Version)

    d) The Open Society: A pledge for Freedom and Order, oekom, München (german)

18. **Argument**
    We need more finanzialization, not less, but in a different way to finance our future. A parallel green additional liquidity running through different channels, operating with new Distributive Ledger Technology can accomplish this, providing a pareto superior equilibrium, due to multiple positive externalities.

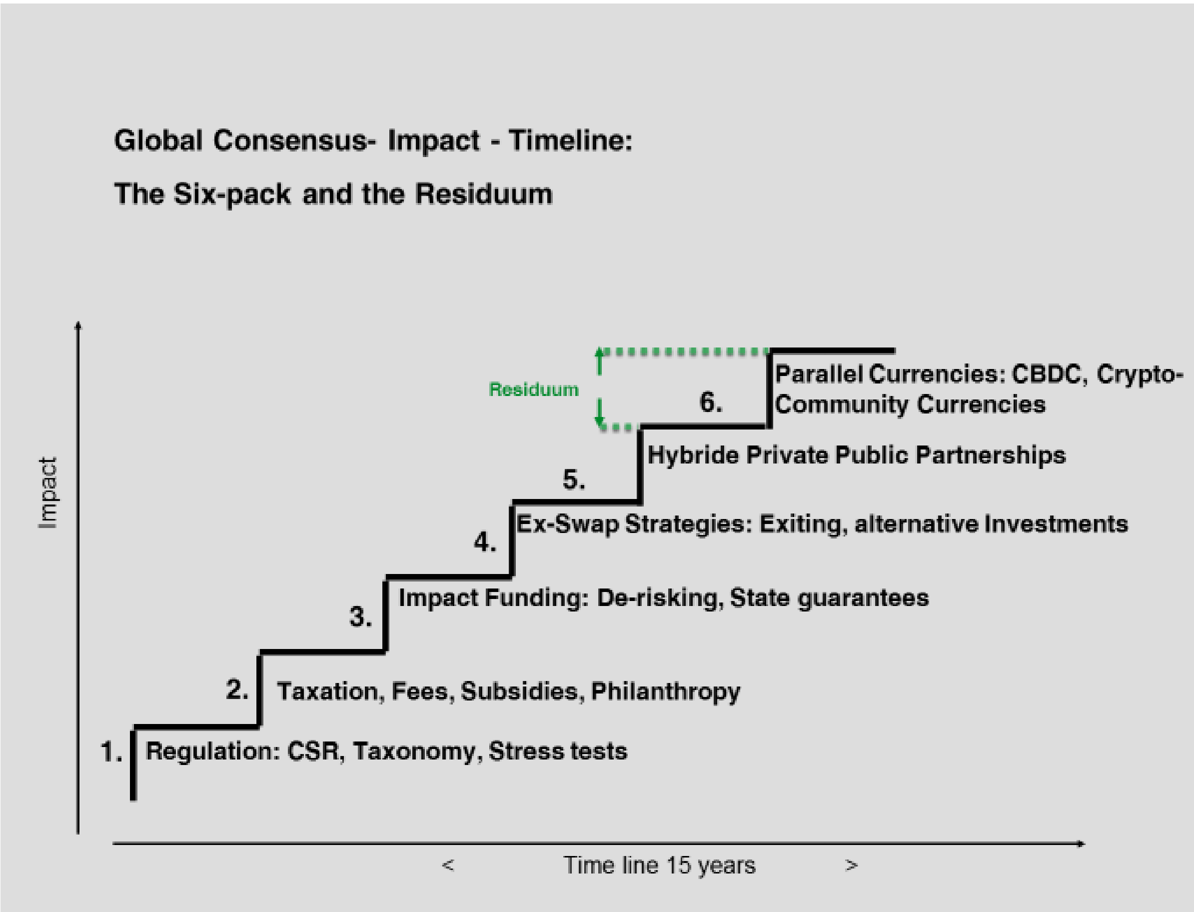
19. **Keywords**

Green CBDCs, Cryptocurrencies, community currencies, Parallel Currency system, Block Chain, New Monetary Channels, Pareto-superior, Financial engineering, different Financialization;

20. Nutshell

A modified monetary mandate of the Central Banks top down with a parallel green Central Bank Digital Currency (CBDC), a private-communal currency system (community currencies) or a private-corporate initiative (crypto-currencies) bottom up (earmarked, digital, block chain driven, different channels) would stabilize international financial markets, increase monetary regulatory efforts, reduce negative externalities, increase social pareto-optimum and stabilize democracy. This is the indispensable missing link, as crowding-in private sector financing, conventional public sector funding (taxes and fees) and philanthropic commitment are not enough in scale and speed to finance our future.

21. Global consensus - impact and the timeline: The Six pack and the Residuum



To note: Considering a 15 years timeline and a 5 Trill USD Bill. In this perspective, the higher the global consensus on lower steps is, the lower the necessary effort for all the further steps will be. F. ex.: If we can come up with a global agreement on regulating tax havens, common accountings standards, harmonized CSR criteria and a global carbon tax, we may end up with less need for ex-swap asset strategies, public contracting and a parallel currency system. The lower the global consensus achieved on the lower steps, the bolder the decisions will have to become on the higher steps. Assuming that we end up with next to no global governance consensus but still want to finance our future, we will have to make the effort to install additional parallel liquidity to ensure the transition from a high-carbon-oxid society to a low one ensuring biodiversity and a social standards at the same time.

22. Forthcoming texts, talks and activities (2021):

a) **The Real Tragedy of the Commons** - The Future Wealth of Nations - Garrett Hardin (1968) revised (in the making)

b) **The economics of asymmetric shocks** (in the making)

c) **The Autocratic Experience:** Why we need an Open society to change toe world (in the making 2021)

d) **The road out of serfdom:** Political Liberalism in the 21. Century (in the making)

e) **The Art of Transformation:** How to adopt wisely and to learn to change the world at the same time (in the making)

f) Multiple talks at academic institutions world wide, including meetings with regulators, politicians, MOPs and corporate on that topic.

g) Media- and blogger activitities are in the making (2021)

23. The WAAS Initiative 'TAO of Finance':

a) english short version

b) chinese short version – ISBN 978-3-96238-692-4 **page 16**

c) arabic short version **page 17**

24. Contact

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Financing the Future - Our Future Wealth Of Nations
A mechanism that can change the world

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Financing the future requires additional liquidity of approximately 5 Trill USD every year over the next 15-20 years globally, beyond the traditional mechanism of money redistributing along the given value chain. Crowding-in private sector financing, conventional public sector funding (taxes and fees) and philanthropic commitment will be not enough in scale and speed to accomplish this. The financial system has become, over the last 40 years more unstable (425 events), causing costs and damages of over 10% of the Gross Domestic Product per event and increasing public debt load globally. These limitations of the financial system thwart any endeavors in the technological and political field to make the word a better place, because the world community is too busy repairing, stabilizing, and refunding the system just to maintain a steady status quo or returning to business as usual.

There are three options: A modified monetary mandate of the Central Banks (CBDCs), private cryptocurrencies (f.ex.: Ripple, Skycoin, Etherium) or complementary community currencies (f.ex.: LETS, Barter, Regiomoney) would stabilize international financial markets, increase monetary regulatory efforts, reduce negative externalities, stabilize consumer pricing, increase social pareto-optimum, generate millions of additional jobs and stabilize democracy. This can be started within 6 months, has the potential to end i.e. poverty in less than a year and would have measurable and profound impact on our life, our society and our planet in less than 2 years. Such a mechanism is the missing link beyond governance, technology, demography and behavioral changes. We need more, much more financialization, but in a more democratic and humanized fashion to increase wealth for the additional 2/3 of the global population and to protect the planet at the same time.

Financing the Future: A mechanism that can change the world

Stefan Brunnhuber
WAAS Working Group on Money and Sustainability

Summary: The indispensable missing link in the debate on sustainability is the monetary system. To date, the Sustainability Development Goals (SDGs) have primarily been financed through private sector financing, conventional public sector funding (taxes and fees) and philanthropic commitment. However, these are not enough in scale and speed to finance our future. The introduction of a parallel electronic currency specifically designed to finance global commons goods would provide the necessary resources to achieve the SDGs while stabilizing the existing monetary system. This could be achieved by giving Central Banks a modified monetary mandate to inject new liquidity into the system (top down), or through corporate or communal initiatives (crypto or communal currencies) initiatives (bottom up). By issuing a block chain enabled parallel electronic currency earmarked for SDG-related projects and using channels for monetary flow other than the conventional system, our future could be financed in a different manner. Letting go of our current monetary monoculture would in the long run stabilize international financial markets, increase monetary regulatory efforts, reduce negative externalities, increase social pareto-optimum and stabilize democracies.

In 2015, world leaders signed up in NY for a future road map with 17 Sustainability Developments Goals (SDGs) to improve Humanity, the Planet, Wealth, Peace and Partnerships. Most of these SDGs focus on common goods such as clean air, universal access to health care, education and maintaining biodiversity. These goods are not exclusive and should be accessible to and enjoyed by everyone. Each of these goals have enough scientific evidence, technological know-how and political consensus to be achieved, and are valid for the entire planet. But these goals are expensive to achieve and require approximately 5 trillion USD/year over the next 15-20 years to finance. Our global Gross Domestic Product (GDP), which includes all goods and services, is approximately 80 trillion USD/year. The conventional way to finance social and ecological projects globally has been by redistributing the money remaining at the end of this pipeline. Historically, the world community has spent 0,7% of the world GDP - roughly 500 billion USD/year – to finance common goods. Other than the scandinavian countries, the vast majority of the world has never attained this 0,7%. But even if all countries attained the 0,7%, this sum is realistically not enough to finance our future. Approximately 8-10 times more funding - equivalent to 5 out of the 80 trillion USD global GDP - is required to meet the social and environmental challenges we face. Withdrawing 5 trillion from the economic process, even in a gradual manner, would lead to a global recession. In fact, it is impossible to finance our future solely through monetary re-distribution. In addition, the stability of the financial system itself is an impediment to sustainable financing. Over the last 40 years, the financial system has become more unstable, with over 425 banking, monetary, or currency crises; and with every consecutive event, higher debt load and greater expenses amounting to more than 10% of GDP. Because of this, the world community spends much effort repairing, stabilizing, and refunding the monetary domain to maintain the status quo. This limitation in our financial system thwarts any improvements in the technological and political field to make the word a better place. Is there a different way to finance our future?

Using systems thinking, we propose an outside the box solution to generate the funds needed to finance global common goods: (a) Central banks would be given a new monetary mandate to create and issue the 5 trillion US Dollar-equivalent liquidity using block chain technologies. Alternatively, (b) properly regulated corporate initiatives (cryptocurrencies) or complementary communal currencies (LETS; Regiomoney) would receive a mandate to issue additional liquidity. These funds would be earmarked and used exclusively to finance SDG-related projects. This electronic liquidity would run through monetary channels other than the ones in the conventional system. We would then have a supplementary currency operating in parallel to the conventional monetary system generating the 5 trillion USD-equivalent annually needed for the next 20 years. Research on optional parallel currency systems has shown a dozen positive effects. For example, this new technology could be used to create and channel targeted financial liquidity to millions of African citizens through their mobile phone network. In India, the existing microcredit banking system could be used to transfer additional liquidity to millions Indian citizens. Any dollar spent and invested through these green, parallel channels has the potential to reduce or even eliminate absolute poverty globally within less than one year. The electronic format would prevent corruption and fraud, as each transaction is transparent and public. Once the currency was eligible to pay taxes, communal offices would have additional liquidity to rebuild public infrastructure such as kindergartens, public parks, communal hospitals and public libraries. And the millions of nongovernmental-organizations globally would finally receive the funding they need to properly do their jobs. This targeted added liquidity would enhance education and access to universal health care that would otherwise never happen. It would reduce resource depletion and clean up air avoiding the negative effects on our planet and common health. We would eventually tap into the untapped potential of millions of unemployed individuals through the creation of new jobs, thereby unleashing the creativity of billions of humans. What would be the effects on the conventional economy? The annual 5 trillion USD-equivalent added liquidity would not hurt or harm the conventional economy. In fact, the opposite would be true. Corporate and state planning, production and price level would become more robust and reliable with a longer-term vision. Furthermore, it would stabilize the cyclical economy of booms and busts. Despite arguments to the contrary, we need much more financialization (Finance/GDP). However, it must be designed in a more democratic and humane manner, to protect the planet while increasing wealth for the two thirds of the global population currently in poverty. If there is a single most important variable beyond technology, governance, behavioral changes and demography to change the world, it is a parallel monetary system. This is the "game changer". All this can be started in less than 6 months, if the 6 largest Central Banks agreed to create a parallel, optional complimentary currency. A redesign of the financial system does not solve all our problems, but all our problems can more easily be addressed by it. This, or a very similar mechanism, is the missing link to achieving greater Humanity, Wealth, Peace, a greener Planet and better global partnerships.

Getting the Figures right: The Wealth Equation or how to generate the 5 Trill USD Bill

Stefan Brunnhuber

Financing the SDG's require a 4-5 Trill USD Bill annually over the next 15 years. Historically we are considering a redistributive mechanism, where the required volume is generated through private investment (crowding-in of the corporate sector, private public partnership programs), public taxation and fees or private philanthropy and charity.

About 1/3 of the SDGs do have a private property and could be targeted through private impact funds or PPP. However 2/3 of the SDG are linked to global common goods and require a completely different approach. The common mechanism of redistributing money is too slow in space and too low in speed to generate the required 4-5 Trill USD. Withdrawing the full amount of that money from the current global value chain is inappropriate, as it would cause a global recession. Therefore a different mechanism is necessary to ensure adequate financing:

(I): 1/3 of the 4-5 Trill USD - 1,5 Trill - are eligible for private investments

(II) The missing 2/3 of the 4-5 Trill USD - 2,5-3 Trill - require additional, targeted liquidity

(III) Central Banks traditionally create a monetary aggregate, called MO of about 7 Trill USD to generate the 70-80 Trill USD of the current globe GDP

(IV) The missing 2,5-3 Trill USD also require 1/10 of an additional monetary aggregate (MO) respectively, which corresponds to 300 Bill USD additional liquidity, annually

(V): As some of the SDG projects are running through different channels (citizen money, NGO's etc.) then the traditional ones (commercial banking), an additional liquidity of 500-1500 Bill USD in total is necessary

(VI) This 1-1,5 Trill USD additional liquidity can be generated through optional, green CBDCs, private cryptocurrencies and / or community currencies accordingly, block chain driven (permission block chain, smart contract, web of trust based etc.) to ensure financing our common future.

(VII) This pre-distributive mechanism reduces negative externalities, creates additional jobs, ensures green growth, increases the steering capacities of monetary regulators, dries out shadow banking and black market and produces additional tax revenues for the public sector.

(VIII) To Note: This procedure will steer the world economy towards a pareto-superior equilibrium

(IX) The overall equation reflects the so called Wealth Effect:

$$WE = \frac{L \; x \; ROI \; x \; M}{y} (df)$$

Key:

WE: Wealth effect generated by a parallel currency
L: Additional liquidity created by the central bank
ROI: Return on Investment per project realized
M: Keynes's demand multiplier
y: Annual adjustment
df: % default of failed projects

(X) To Note: The Wealth Effect created by a green parallel currency is substantially larger then any traditional Keynes'schen multiplier

Regional Transformation in the 21st Century

Resilient Economic Activity—Sustainability—Blockchain—Parallel Currency

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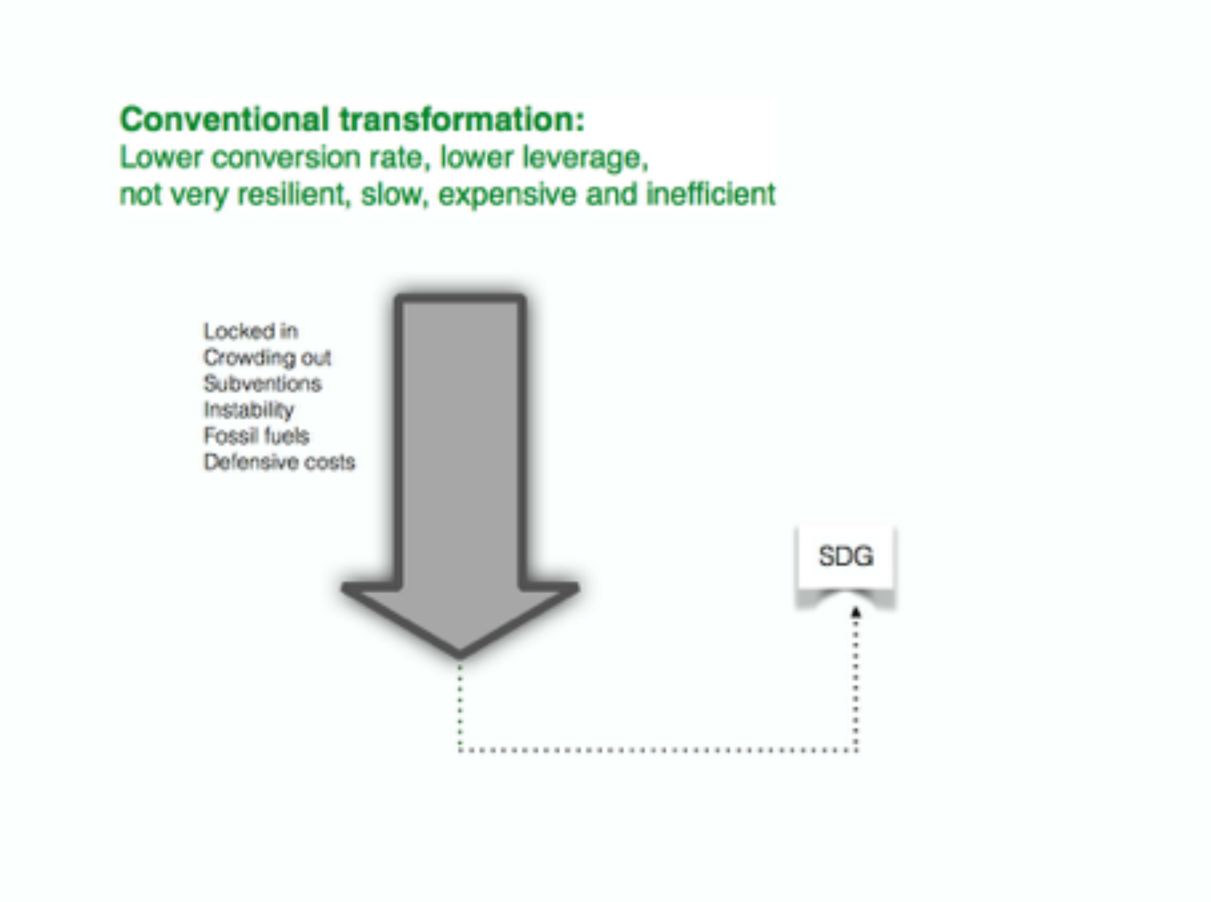
In the so-called Age of the Anthropocene, where humans are the core causal factor and impact on geo-ecological changes on our planet, regional developments are influenced by global networks and ecological boundaries. Traditionally, regional development has been characterized by growth and redistribution, cross-subsidization and external providers of capital. But if a region is to develop sustainably long term and if this development is to be sufficiently resilient in a globalized, completely networked world, further political instruments are required. Such political interventions should affect regions' political, economic, ecological, social and cultural transformation, and involves kindergarten places, care services, public infrastructure, and regional environmental protection as much as it does regional business development, energy and transport solutions, education provision and participation in public life. The United Nations' 17 "Sustainable Development Goals" (SDGs), which include over 160 agreed targets, provide such a roadmap. In terms of financial policy, on average an additional 8-10% of regional economic power would be required to implement this kind of regional transformation. However, this sum cannot be deducted from the value being created and redistributed. A regulated, regional or sectoral parallel currency associated with blockchain technology would be able to create this additional liquidity (and in a quick, efficient and targeted manner). This parallel currency would create the financial and monetary framework conditions for the regional transformation that is being called for. The following effects can be anticipated:

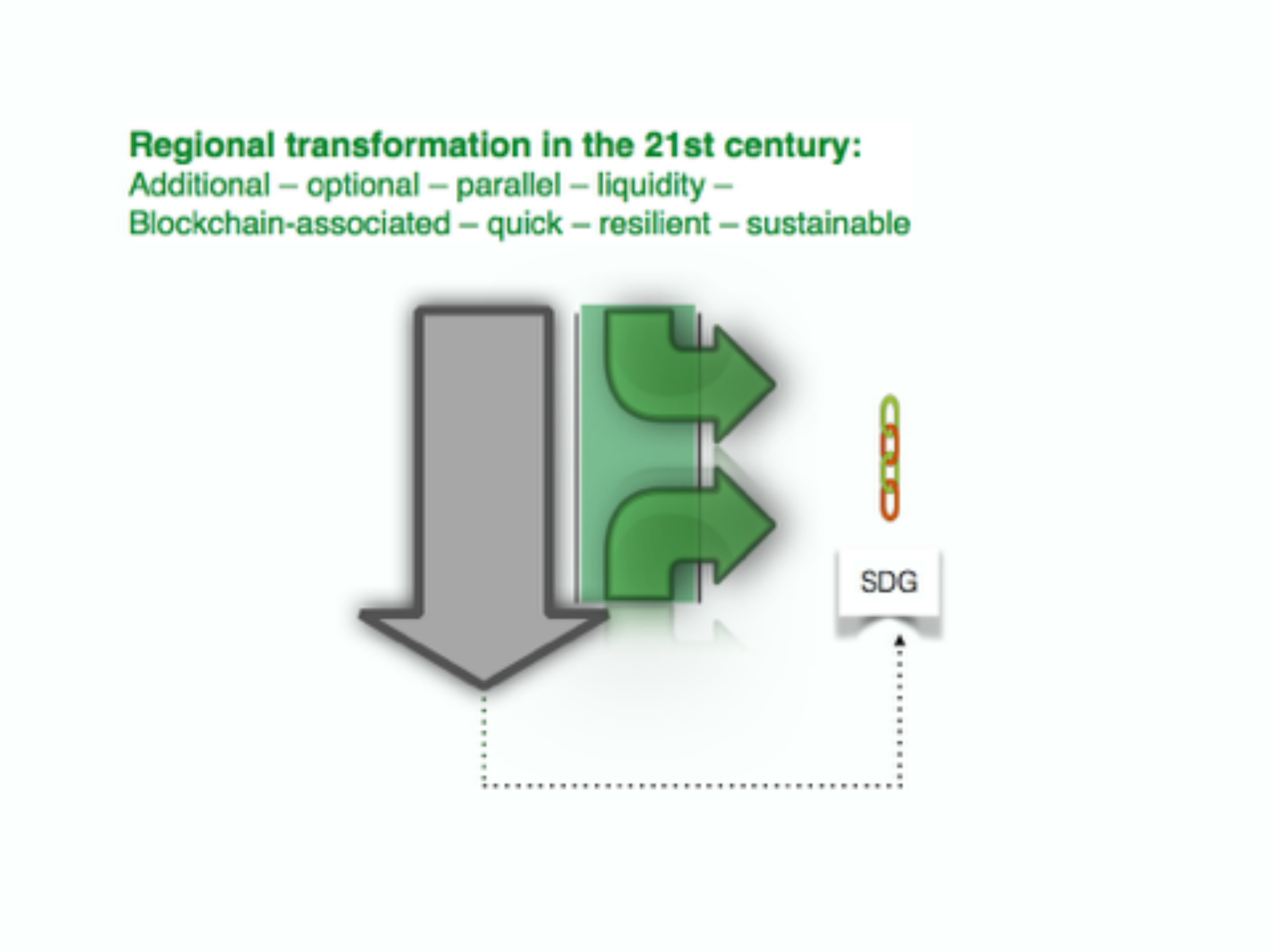
1. Political decision-makers regain self-efficacy and control over the region.
2. Citizens develop a strong regional identification with the parallel currency.

3. Additional regional tax income of over 10% flows back into the region.
4. Social and ecological externalities and costs are reduced in the region.
5. A green business development program with further additional jobs is created.
6. Price levels are stabilized and there is an anti-cyclical effect on the region.
7. The region's resilience to uncontrollable external political and economic shocks and events is increased.

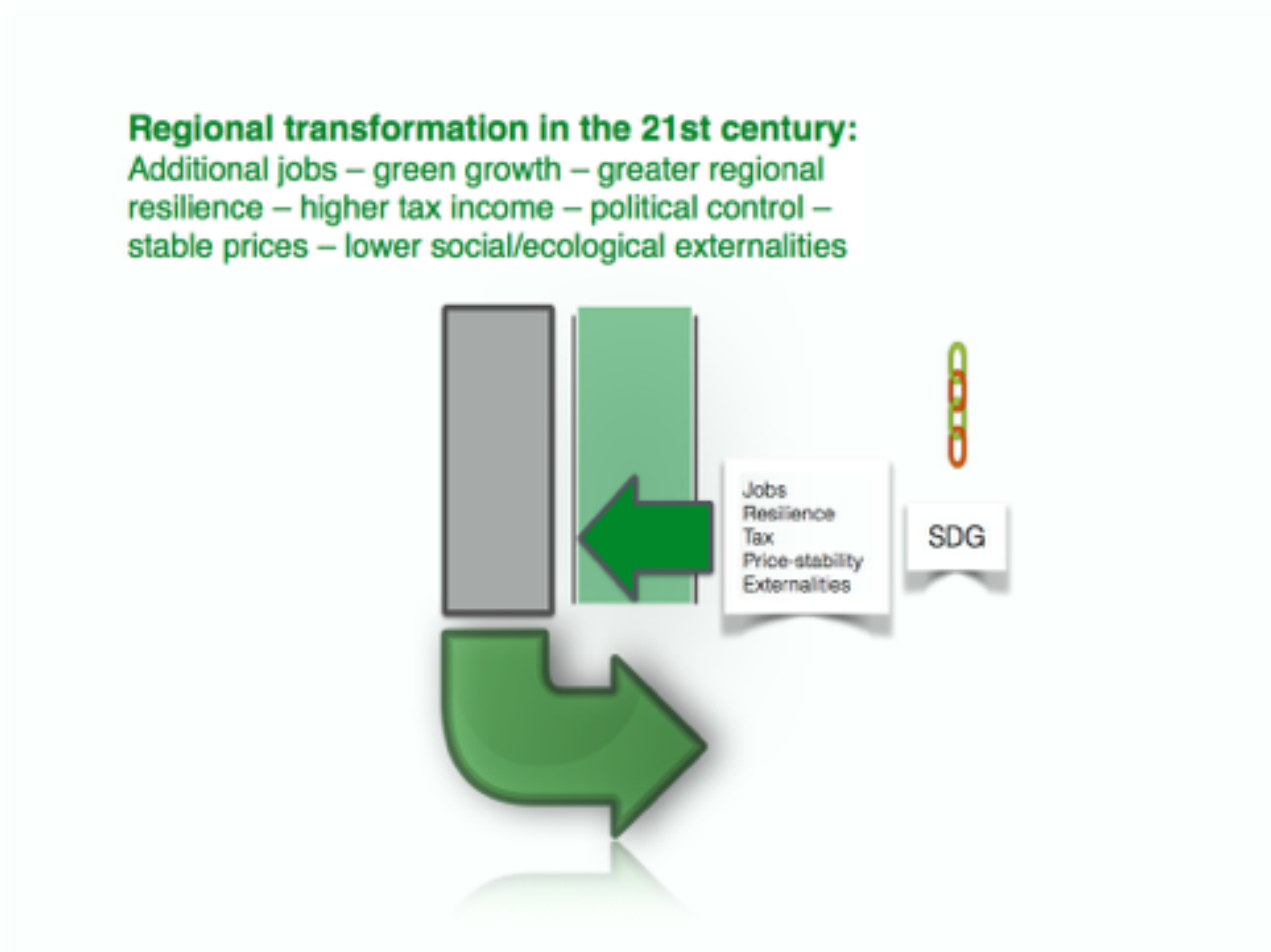
The following three graphs depict sustainable, resilient regional transformation:



A: The grey arrow describes regional value creation with an “end of pipe” redistribution in favor of social, ecological and public projects. Conventional redistribution is strictly limited by a range of economic conditions (lock in, crowding out, subventions etc.). This fails to achieve true, sustainable transformation.



B: The green corridor, parallel to conventional value creation, describes a digital parallel currency (associated with a distributed ledger technology, smart contract, semi-permission, etc.), which creates additional, targeted liquidity to finance the upcoming regional transformation.



C: This additional, targeted liquidity creates the right conditions for the region as a whole—via additional jobs, increased tax income, regional resilience, stable prices and reduced social and ecological externalities—to not only consolidate the existing growth trajectory, but transform it long term.

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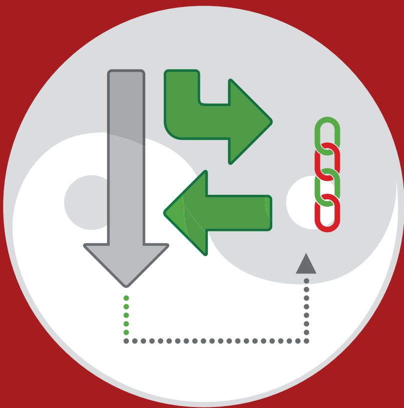

国家的未来财富

تاو التمويل
الثروة المستقبلية
للأمم