A Macroeconomic Theory of Sustainability (MTS)

How Fiscal and Monetary Policy Interventions Can Be Used to Reverse the Externalized Costs of Business and Achieve Sustainability in Commerce

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EXECUTIVE SUMMARY: Macroeconomic Theory of Sustainability (MTS)

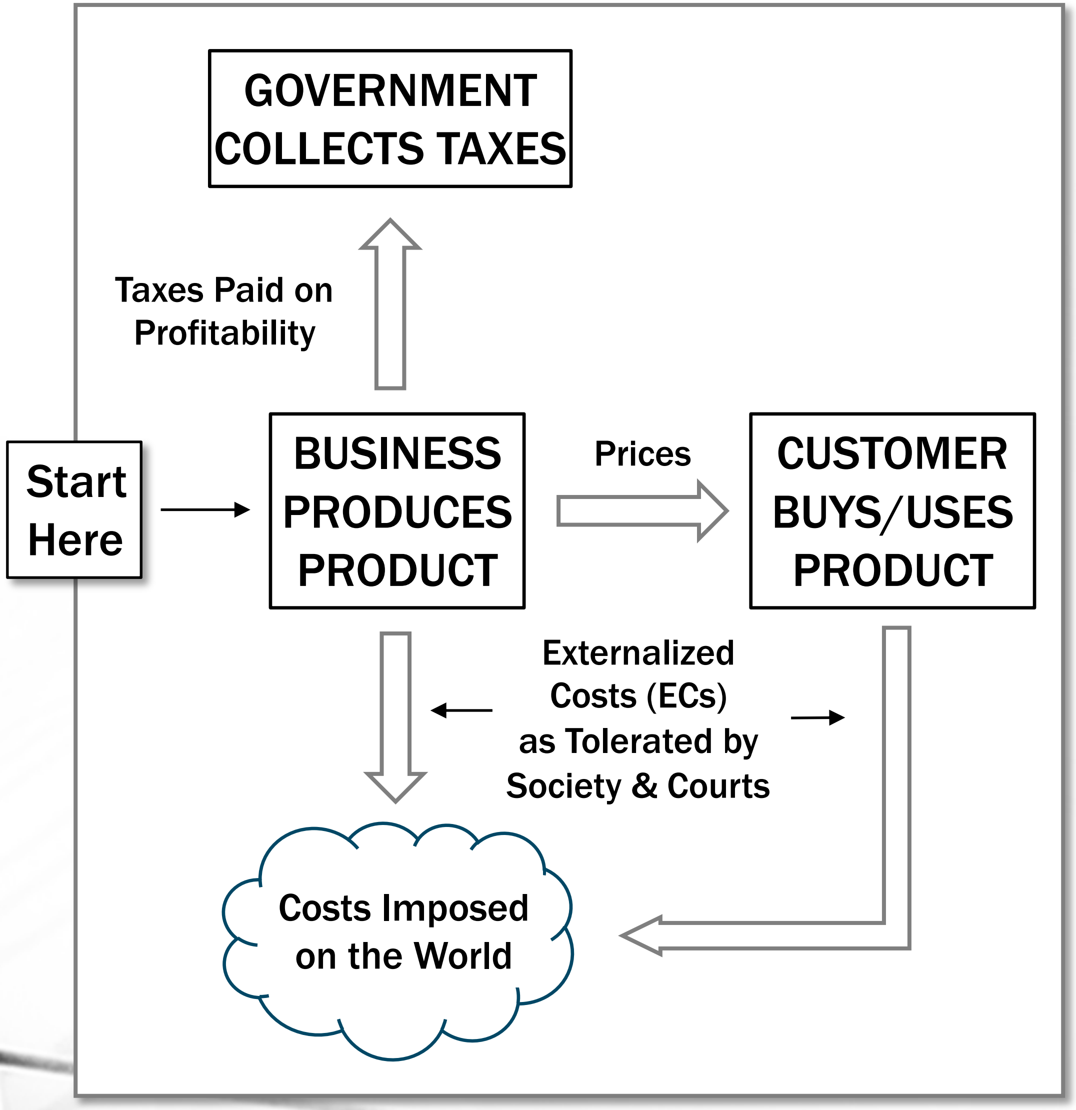
- **Many of the world's most intractable social, economic and environmental problems can be traced to the negative externalities of business**
  - And also to the insufficiency of *positive* impacts in some cases (e.g., tax payments)
  - Society has so far tolerated this while enforcing profit maximization and shareholder primacy in its fiscal and monetary policies, statutes, and courts
- **Herein we propose a specific blend of fiscal and monetary policies to help resolve such problems**
  - New policies are proposed that (a) prohibit and tax the externalization of costs by businesses, and (b) require the use of triple bottom line (TBL) accounting tools
  - Changes in fiscal policy are also proposed so as to provide Pigouvian tax credits to businesses in order to (a) help fund the transition to TBL accounting, and (b) help offset the initial costs of ending and/or internalizing all currently externalized costs
  - Monetary policy must also change in order to help finance the new fiscal policies (e.g., by adding a third goal to the U.S. Federal Reserve's *full employment* and *stable pricing* mandates: *ensure sustainable commerce*)

PROPOSED FISCAL and MONETARY POLICY SOLUTION (1/5)

- **Current Environment**
  - Companies produce products while externalizing their social, economic, and environmental costs to the world around them; their goal is to maximize profits, knowing that (a) society tolerates the externalization of related costs, and (b) courts enforce the profit maximization doctrine on behalf of shareholders
  - Customers buy products and externalize costs of their own, too, as such products are used and discarded – again, society tolerates and bears the cost of this
  - Prices charged to customers reflect neither the full costs of their production, nor the unwanted effects of their use and disposal, because such costs are *externalized* to, and shouldered by, society and the environment
  - Companies pay taxes to the federal government on their profits and not their externalized costs; customers sometimes pay sales taxes on their purchases, too; but, with few exceptions, not their externalized costs

PROPOSED FISCAL and MONETARY POLICY SOLUTION (2/5)

Current Environment



PROPOSED FISCAL and MONETARY POLICY SOLUTION (3/5)

- **Target Environment**
  - Societal tolerance for negative externalities or externalized costs (ECs) comes to an end as the federal government adopts a policy of prohibiting and taxing them (via Pigouvian Taxation) at their full value in addition to taxing profits
  - Initially, such additional EC taxes are fully subsidized by the federal government in the form of Pigouvian tax *credits*, the extent of which gradually declines over time as companies work to (a) modify their accounting systems, (b) take advantage of the new tax credits, and (c) mitigate and/or eliminate their negative externalities
  - This shifts the burden of ECs from society to their source: *businesses themselves*
  - The central bank also comes into play as financier to the federal government by issuing the funds required to carry out the EC tax policy (i.e., per MMT*)
    - The dual-mandate of the central bank in the case of the U.S. (*full employment* and *price stability*) is expanded to include a third goal: *ensure sustainable commerce*
    - As customers adjust to the new EC policy, central bank support lessens over time until all central bank funding is either discontinued or capped at a low level

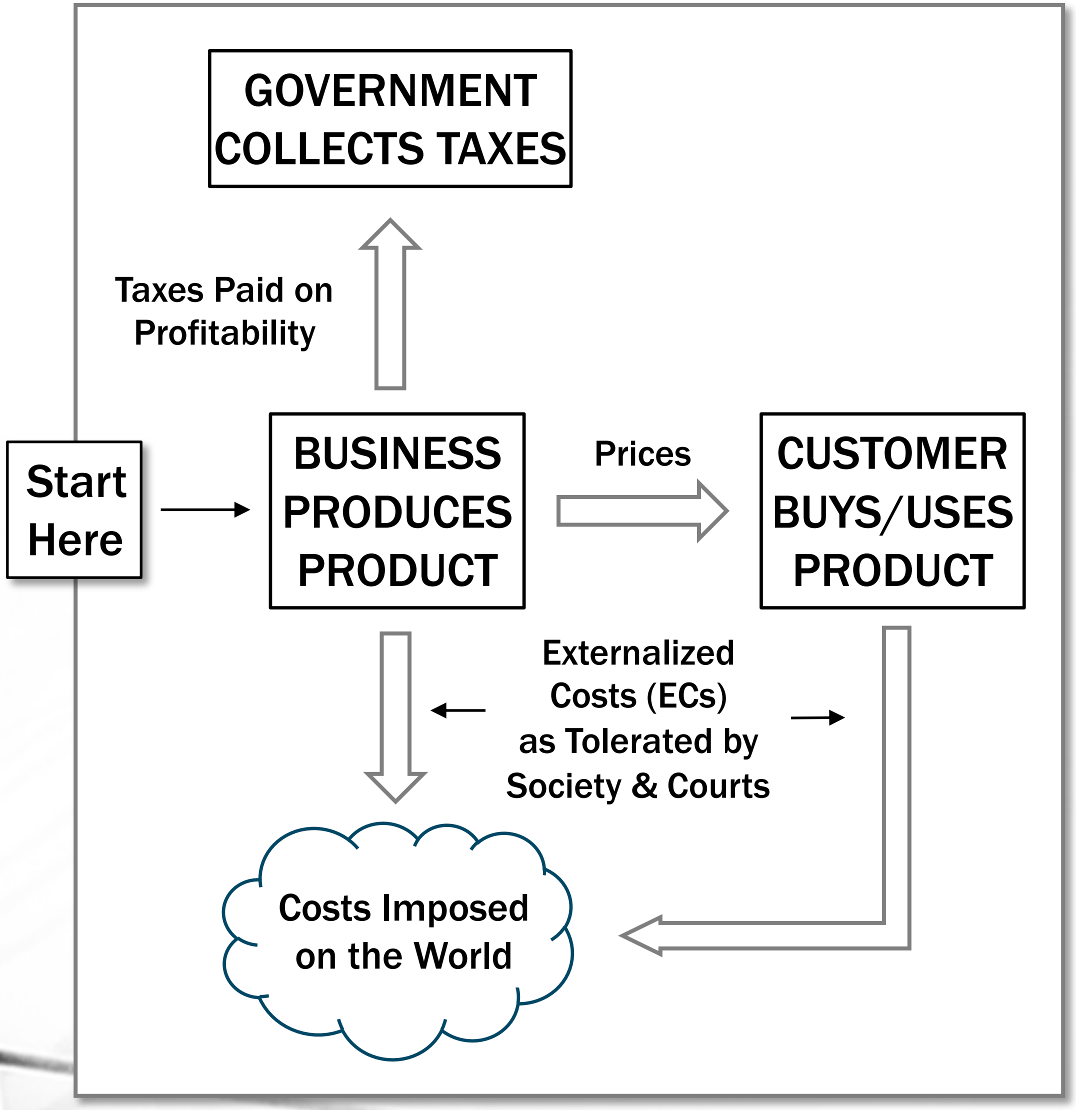
*MMT = Modern Monetary Theory

PROPOSED FISCAL and MONETARY POLICY SOLUTION (4/5)

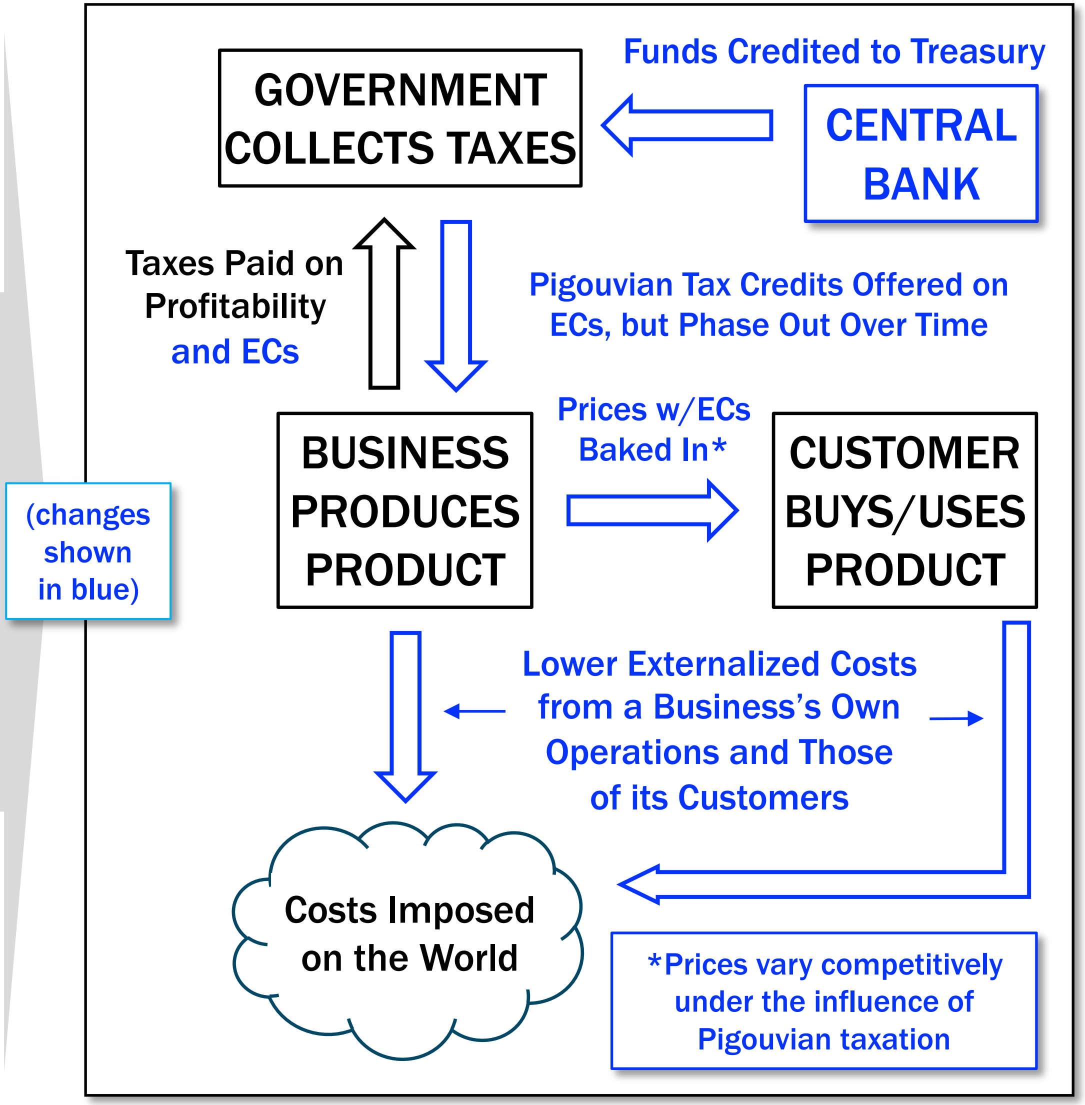
- **Target Environment (cont.)**
  - As EC tax credits gradually decline, businesses will increasingly face pressure to quickly reduce their negative ECs (i.e., as Pigouvian tax credits give way to Pigouvian tax liabilities, and as some companies who are better able to mitigate their negative externalities come to the fore)
  - As the government's fiscal policies mature, all EC-related taxes paid by businesses result in corresponding decreases in monetary bank credits to the treasury – businesses themselves lose their credits and become solely responsible for paying the full cost of their externalities
  - Capitalism and its corresponding fiscal and monetary policies simultaneously transition from *monocapitalism* to *multicapitalism*
    - See *"Does Sustainable Performance Mean Abandoning Capitalism?"* (by M. P. Thomas and M. W. McElroy, 2016)

PROPOSED FISCAL and MONETARY POLICY SOLUTION (5/5)

Current Environment (monocapitalism)



Target Environment (multicapitalism)



ECs = Externalized Costs

MULTICAPITALISM AS THE ESSENCE OF MTS

- **From 'monocapitalism' to 'multicapitalism'**
  - A distinction originally formulated and coined by M. P. Thomas and M. W. McElroy in 2014
    - **Monocapitalism**: A form of capitalism that judges performance in terms of impacts on only 1 type of capital (financial) for the benefit of only one stakeholder group: *shareholders/investors*
    - **Multicapitalism**: A form of capitalism that judges performance in terms of impacts on all vital capitals and for the benefit of all stakeholders
- **Key features of multicapitalism**
  - Negative externalities are prohibited and taxed; with chronic offenders placing themselves at risk of having their licenses to operate revoked
  - Required positive externalities, in turn, are enforced and rewarded (tax deductions)
  - Required triple bottom line (TBL) accounting at the microeconomic level does not replace, but supplements financial accounting
  - Required sustainability accounting at the macroeconomic level supplements GDP

SUPPORTING TOOLS and METHODS

- **Required sustainability accounting at the microeconomic level**
  - Context-Based Sustainability (CBS) – A proven, open-source methodology that has been in existence since 2005
  - Generally Accepted Integrated Accounting (GAIA) Principles – The world's first articulation of generally accepted principles for integrated accounting
  - MultiCapital Scorecard – An open-source implementation of CBS expanded to include treatment of triple bottom line performance in all of its dimensions
  - Authentic Sustainability Assessment – A *User Manual* for the *Sustainable Development Performance Indicators (SDPI)* in which the UN (UNRISD) promotes and applies CBS
- **Required sustainability accounting at the macroeconomic level**
  - Aggregate Capital Sufficiency (ACS) – An open-source multi-capital performance accounting method that assesses the effects of an economy on the overall sufficiency of vital capitals in a region or nation
    - *Introducing Aggregate Capital Sufficiency (ACS) – A New Alternative to GDP*
    - *Aggregate Capital Sufficiency and National Well-Being* (a demonstration of ACS performed in 2017 with Ernst & Young)

ILLUSTRATION of MTS in a 3-COMPANY ECONOMY

Amounts Shown are in Millions of U.S. Dollars		Hypothetical Illustration of Pigouvian Taxation in a 3-Company Economy																		Fiscal Budget Impacts		
		***Enterprise 1:* 25% Internalization After 10 Years**						***Enterprise 2:* 50% Internalization After 10 Years**						***Enterprise 3:* 75% Internalization After 10 Years**						Gov't & Central Bank Credits	Budget Deficits	National Debt
		Tax Liability		Accounting System Transition Costs	Pigouvian Tax Credits		Net Tax Liability	Tax Liability		Accounting System Transition Costs	Pigouvian Tax Credits		Net Tax Liability	Tax Liability		Accounting System Transition Costs	Pigouvian Tax Credits		Net Tax Liability			
Stage	Year	Legacy Tax	Pigouvian Tax		Actg. System	Pigou. Taxes		Legacy Tax	Pigouvian Tax		Actg. System	Pigou. Taxes		Legacy Tax	Pigouvian Tax		Actg. System	Pigou. Taxes				
5-Year Accounting Transition Period	2030	10.00	0.00	1.50	1.50	N/A	10.00	10.00	0.00	1.50	1.50	N/A	10.00	10.00	0.00	1.50	1.50	N/A	10.00	4.50	0.00	N/A[1]
	2031	10.50	0.00	1.50	1.50	N/A	10.50	10.50	0.00	1.50	1.50	N/A	10.50	10.50	0.00	1.50	1.50	N/A	10.50	4.50	0.00	
	2032	11.00	0.00	1.50	1.50	N/A	11.00	11.00	0.00	1.50	1.50	N/A	11.00	11.00	0.00	1.50	1.50	N/A	11.00	4.50	0.00	
	2033	11.50	0.00	1.50	1.50	N/A	11.50	11.50	0.00	1.50	1.50	N/A	11.50	11.50	0.00	1.50	1.50	N/A	11.50	4.50	0.00	
	2034	12.00	0.00	1.50	1.50	N/A	12.00	12.00	0.00	1.50	1.50	N/A	12.00	12.00	0.00	1.50	1.50	N/A	12.00	4.50	0.00	
First 10 Years of Pigouvian Credits In Use	2035	12.50	50.00	1.00	0.00	1.25	61.25	12.50	50.00	1.00	0.00	2.50	60.00	12.50	50.00	1.00	0.00	3.75	58.75	7.50	0.00	N/A[1]
	2036	13.50	52.00	1.10	0.00	2.60	62.90	13.50	52.00	1.10	0.00	5.20	60.30	13.50	52.00	1.10	0.00	7.80	57.70	15.60	0.00	
	2037	14.00	54.00	1.20	0.00	4.05	63.95	14.00	54.00	1.20	0.00	8.10	59.90	14.00	54.00	1.20	0.00	12.15	55.85	24.30	0.00	
	2038	14.50	56.00	1.30	0.00	5.60	64.90	14.50	56.00	1.30	0.00	11.20	59.30	14.50	56.00	1.30	0.00	16.80	53.70	33.60	0.00	
	2039	15.00	58.00	1.40	0.00	7.25	65.75	15.00	58.00	1.40	0.00	14.50	58.50	15.00	58.00	1.40	0.00	21.75	51.25	43.50	0.00	
	2040	15.50	60.00	1.50	0.00	9.00	66.50	15.50	60.00	1.50	0.00	18.00	57.50	15.50	60.00	1.50	0.00	27.00	48.50	54.00	0.00	
	2041	16.00	62.00	1.60	0.00	10.85	67.15	16.00	62.00	1.60	0.00	21.70	56.30	16.00	62.00	1.60	0.00	32.55	45.45	65.10	0.00	
	2042	16.50	64.00	1.70	0.00	12.80	67.70	16.50	64.00	1.70	0.00	25.60	54.90	16.50	64.00	1.70	0.00	38.40	42.10	76.80	0.00	
	2043	17.00	66.00	1.80	0.00	14.85	68.15	17.00	66.00	1.80	0.00	29.70	53.30	17.00	66.00	1.80	0.00	44.55	38.45	89.10	0.00	
	2044	17.50	68.00	1.90	0.00	17.00	68.50	17.50	68.00	1.90	0.00	34.00	51.50	17.50	68.00	1.90	0.00	51.00	34.50	102.00	0.00	
20th Year	2054	30.00	150.00	3.00	0.00	18.75	161.25	30.00	150.00	3.00	0.00	37.50	142.50	30.00	150.00	3.00	0.00	56.25	123.75	112.50	0.00	N/A[1]
30th Year	2064	40.00	200.00	4.00	0.00	12.50	227.50	40.00	200.00	4.00	0.00	25.00	215.00	40.00	200.00	4.00	0.00	37.50	202.50	75.00	0.00	N/A[1]
		Total 65-Year Credits			124.00			**Total 65-Year Credits**			240.50			**Total 65-Year Credits**			357.00			721.50		

Total Fiscal (Gov't) Tax Credits	721.50
Total Central Bank Credits	721.50

[1]National debt in the U.S. and other monetary sovereigns is not "debt" in the the conventional sense. As a monetary sovereign, the U.S. can never run out of money. Only a failure by congress to raise the debt ceiling can cause loan defaults, albeit voluntary and unnecessary ones. Otherwise, national debt is just a running total of net credits to the U.S. gov't that can be erased at any time.

Download spreadsheet here: https://www.sustainableorganizations.org/3-Company-MTS-Illustration.xlsx

ASSUMPTIONS

- **Congress will pass legislation that prohibits and taxes the externalization of costs by businesses (medium and large companies at a minimum)**
  - Businesses will further be required to adopt and operationalize ***context-based, triple-bottom-line accounting***, while maintaining the use of conventional financial accounting as needed
- **Congress will expand the role of the central bank to include '*ensure sustainable commerce*' as a new component of its remit**
  - Financing Pigouvian taxation at the fiscal level will be authorized
- **Congress will also embrace the use of *Modern Monetary Theory (MMT)***
  - To fund Pigouvian taxation at the fiscal level
- **The central bank will subsidize the transition to Pigouvian taxation, but will gradually give way to businesses themselves to internalize costs**

OBSTACLES TO CONTEND WITH

- **General**
  - Legislative implementation will be opposed by advocates of shareholder primacy
  - Finding first-movers or suitable cases to initially pilot MTS will be difficult
  - Interpreting performance at the enterprise level (i.e., using CBS*) will be hampered by controversy over how best to calculate externalized costs
- **MMT-Related****
  - Credited funds from the central bank could cause inflation to spike, but only if not properly constrained per MMT – it may not always be prudent to fully fund MTS
  - Political inertia, if not fierce opposition to the idea, due to misunderstandings of MMT could be formidable
  - Presence of third-party digital issuers of ‘stablecoins’ (e.g., as envisioned by the GENIUS Act) could dilute the influence and effectiveness of central bank policies

*CBS = Context-Based Sustainability

**MMT = Modern Monetary Theory

SUMMARY

- **General Problem of Externalities**
  - Most of the world's social, economic and environmental problems can be traced to the negative externalities of business and also to the insufficiencies of positive ones
  - An innovative blend of macroeconomic policies can be used to address this problem
- **Macroeconomic Theory of Sustainability (MTS)**
  - ***Fiscal Policies***: (a) formally adopt multicapitalism in place of today's monocapital-istic system, (b) mandate compliance with new externality policies in business and enforce with Pigouvian taxation, and (c) further mandate the use of context-based accounting in businesses in order to measure the extent of their externalized costs
  - ***Monetary Policies***: (a) expand scope of central bank's mission by adopting multi-capitalism there, too, and include *ensure sustainable commerce* as one of its primary goals in addition to maintaining *full employment* and *price stability*, and (b) launch a context-based macroeconomic metric as an alternative to GDP that assesses the sustainability of whole economies in terms of 'aggregate capital sufficiency' (ACS)

GLOSSARY

- Central Bank – An institution that manages the monetary policy of a nation-state and the issuance of its currency.
- Context-Based Sustainability (CBS) – A multi-bottom-line performance accounting method that assesses the impacts of organizations and other human social systems on vital capitals relative to entity-specific sustainability norms, standards and thresholds.
- Externality (Negative or Positive) – "An indirect cost (external cost) or indirect benefit (external benefit) to an uninvolved third party that arises as an effect of another party's (or parties') activity." (Wikipedia).
- Fiscal Policy – The manner in which government rules and regulations for revenue collection and spending (e.g., tax rates, tax credits, borrowing, and budgets) are used to influence and/or manage the health of a nation's economy.
- Modern Monetary Theory (MMT) – A macroeconomic theory which holds that the issuer of a fiat currency, such as a government (and contrary to a household or a firm), faces no financial constraints and can never run out of money or become insolvent in its own currency.
- Monetary Policy – The manner in which the central bank of a nation affects the health of its economy (e.g., by setting interest rates), including as proposed herein the social and environmental sustainability of its commerce.
- Pigouvian Taxation – Taxes and tax credits on business activities aimed at encouraging, discouraging, or maintaining positive and/or negative externalities as the case may be.

Thank you!

Questions and comments most welcome!

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