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Global Imbalances and the Key Currency Regime: The Case for a Commodity Reserve Currency

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ABSTRACT *This paper considers Kaldor's 1964 proposal for a commodity reserve currency (CRC) as a serious alternative to the current system, which has the US dollar as the world reserve currency. It argues that the reserve-currency status of the US dollar helped to create global imbalances and financial fragility pre-empting the current crisis. The primary goal of the CRC was to resolve the 1960 Triffin dilemma, which remains a problem today. Following a brief history of alternative monetary reform proposals, the CRC is outlined. Backed by a basket of 30 or so commodities, the CRC would fix their price index in terms of the international reserve and reduce the disorderly swings in individual commodity prices. Sovereign governments would be free to fix or float their national currencies to the CRC. With growing fears over global warming and national resource security, particularly in the world's poorest countries, the introduction of a CRC could reduce supply constraints, stabilize costs of production, promote global effective demand from the periphery and balance growth between periphery and core countries.*

1. Introduction

The debate over international monetary reform recently garnered attention with the 2007–2009 international banking crisis and resulting world recession. While there appears to be a split in the academic community, many economists agree with *The Economist* (22 January 2008) that 'the deep causes of the financial crisis lie in global imbalances'.

The global imbalances view argues that emerging market economies have kept their exchange rate undervalued to promote export-led growth, in turn building high domestic savings and large sovereign wealth funds during the boom. To keep the price of their US dollar (USD) denominated exports competitive, these countries sterilize their capital inflows and invest their excess

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funds into USD denominated assets. This contributes to a strong USD and large US current account deficits. In turn, 'global imbalances played a role in the build up of systemic risk. They contributed to [US] low interest rates and to large capital inflows into US and European banks. … [T]hese two factors then contributed to a search for yield, higher leverage, and the creation of riskier assets' (International Monetary Fund, 2009). The recycling of these funds into higher paying riskier assets, especially in some emerging markets and commodities, can support development in the periphery if it is invested for the long term. However, much of this funding is kept in liquid short-term assets. For example, developing and emerging countries are now being battered by the speedy exit of foreign capital after years of capital inflows. Net inflows into emerging markets were $929 billion in 2007, and are expected to fall to $165 billion in 2009 (*The Economist* 5 February 2009). Yet the unwinding of these imbalances is not inherent in the system. Many emerging countries that witness weakness in their currencies further try to increase their cash reserve holdings as a hedge against volatility.

While the USD reserve has imparted enormous liquidity into the system, the cost of providing this 'international pubic good' is born by the real side of the US economy through weakened export growth and unemployment. US financiers have been protected by the reserve currency status of the dollar. As world international banker, growing deficits in the US (current account, government and household debt) financed by surpluses in the periphery, allowed US financial fragility to be exported to developing countries. When crisis strikes, a rush to the USD and 'flight to quality' allows for much greater elasticity in adjustment in the core country, and the fragility of US entities is exported to the periphery (Vasudevan, 2009).

Resolutions are fraught with coordination problems. Some blame the transformation of emerging markets from debtors to massive creditors to industrialized countries, on IMF policies during the 1997 Asian crisis, which spurred countries in the region to build up enormous reserves rather than call on the IMF for conditional austerity loans. The IMF has recognized this problem and during this crisis it has offered some unconditional lines of credit and has emphasized short-term deficit spending.

Calls for new issues of special drawing rights (SDR) will not resolve the global system's inherent contradictions. A more workable long-term fix for the problems of the world economy and the generation of even effective demand would involve figuring out how to resolve the inherent tendency towards global imbalances.

A similar period of interest in global imbalances was during the so called 'dollar crisis' in the 1960s when Germany and Japan had large surpluses, and a fear for a run on the USD. Countries began hoarding gold and the US had to ultimately halt the gold peg in 1971. At the time, Robert Triffin and Nicholas Kaldor (among others) blamed the key currency regime. In 1964, Kaldor made a comprehensive proposal to the first UNCTAD conference in Geneva for an international commodity reserve currency. Up until his death in 1986, Kaldor believed that such international monetary reform was the optimal formulation for balanced growth in world production and trade. In particular, he believed it would stabilize and

expand the trade in primary production, inputs essential to industrialization and economic progress, and thus promote an independent source of international growth from the periphery, reducing its dependence on the core.

Nicholas Kaldor's commodity reserve currency (CRC) proposal built directly upon the proposals outlined by Jan Goudriaan (1932, 1953) and Benjamin Graham (1937, 1944).[1] Hart (1991, p. 561) tells us that Kaldor's advocacy of the CRC went back to 1948. No doubt Kaldor's early thinking on this matter was heavily influenced by his peers at that time in the Economic and Social Council of the United Nations: Richard Kahn, Jan Goudriaan, Sydney Dell, Raúl Prebisch and Hans Singer (see Toye & Toye, 2004).

In line with the distinction Prebisch (1950) and Singer (1950) had drawn between 'North' and 'South' and the core–periphery analysis of Williams (1944, p. 374), where countries are connected through trade and finance via a 'common center,' Kaldor (1996) focused on the interrelations between primary and secondary sectors. This dichotomy applied both within a country and between commodity-dependent and industrialized nations. Kaldor wanted to promote the decoupling of periphery countries from the core in order to stabilize global imbalances and moderate negative spillover effects that originate from the key country. His proposal for a new international monetary system based on a CRC sought to stabilize commodity prices and maintain global demand without cost-push inflation. Kaldor considered the CRC to be an apolitical, global automatic stabilizer with large multiplier and accelerator effects that would supplant the need for international cooperation.

This paper begins by considering the failure of the 'key currency' regime that Kaldor cites as the cause for global imbalances in world trade. It then summarizes the various proposals for international monetary reform based on the choice of international reserve: key currency, fiat currency, or commodity-backed money. Finally, the paper examines the CRC proposal by Hart *et al.* (1964), which Kaldor saw as the best way to achieve robust and balanced growth globally.

2. Global Imbalances

Kaldor (1971a, p. 61) traced the development of persistent deficits in US 'basic transactions' to 1951.[2] He claimed that these were not due to budget deficits, 'excessive' US growth (since the economy was far from full employment), or inflationary monetary policy. They were rather the result of an overvalued US dollar which followed the implementation of Bretton Woods and the scarce

[1]Other variants of this scheme were proposed by Frank Graham (see Endres, 2005, pp. 85–93), and F.A. Hayek (1943).

[2]As the outflow of private long-term capital and government grants and capital transactions exceeded the US surplus in the balance on current account, the basic balance would be in deficit. This was financed by a fall in the US gold stock and an increase in the foreign holdings of dollar assets. Confidence that the US could continue to redeem dollar holdings in gold began to wane. In 1971 the US defaulted on this commitment when Nixon closed the gold window and made the dollar inconvertible into gold.

supply of gold, which forced the USD into 'key currency' status. What eventually followed was a growing deficit in the trade account, as can be seen in Figure 1.

Kaldor emphasized that what distinguished the 'dollar standard' era from its 'gold standard' predecessor was the increased volume of international reserves. Lifting the prior liquidity constraint was essential and it enabled countries to feel more secure in adopting free trade and to deregulate capital flows. Dollarization allowed US expenditure to exceed receipts, which provided a steady increase in international purchasing power for the rest of the world. This produced a succession of multiplier and accelerator effects which induced a faster growth of productive capacity and living standards in most, if not all, market economies.

> So long as countries preferred the benefits of fast growth and increasing competitiveness to the cost of part financing the United States' deficit (or what comes to the same thing, preferred selling more goods even if they received nothing more than bits of paper in return), and so long as a reasonable level of prosperity in the United States (in terms of employment levels and increases of real income) could be made consistent with the increasing uncompetitiveness of United States goods in relation to European or Japanese goods, there was no reason why any major participant should wish to disturb these arrangements. But with the passage of time these preconditions became increasingly tenuous. (Kaldor, 1971a, p. 63)

With the world's reserve currency as well as its liquid financial markets, the US, unlike all other countries, has not had to worry about its balance of payments. However, for this it has paid a heavy price. As the products of American industry have become increasingly replaced by foreign markets, either through the movement of manufacturing plants offshore or by the closure of American companies,

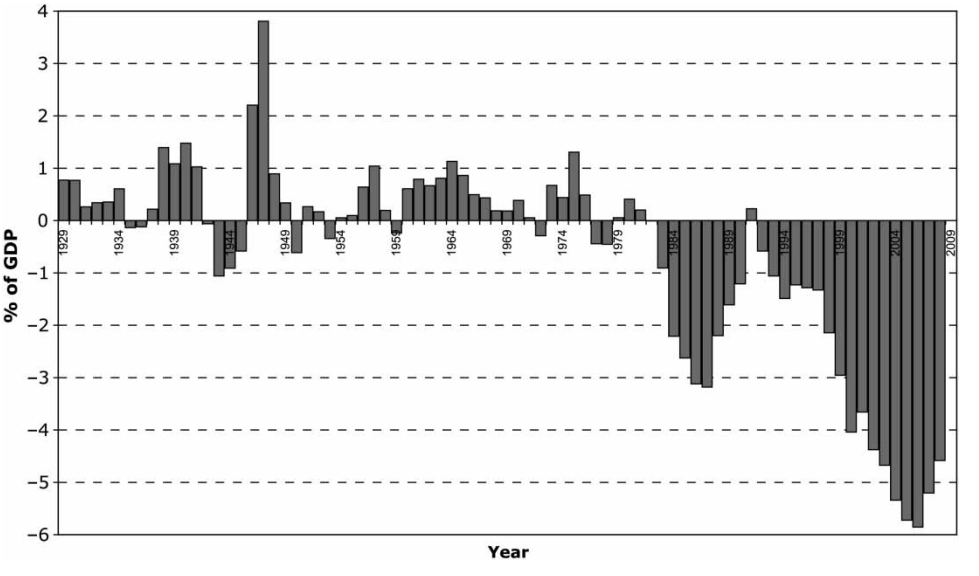

Figure 1. US Current Account as % of GDP. Source: US Bureau of Economic Analysis.

maintaining American prosperity has been dependent on ever-rising budgetary and balance of payments deficits (borrowing). Recognizing this, Kaldor (1971b, p. 5) increasingly viewed domestic demand management (monetary and fiscal policy) as an inadequate long-run tool since it promoted consumption and imports rather than investment.

An alternative strategy available to other countries was the management of the exchange rate to lower prices relative to other industrial exporters, i.e. focusing on international competitiveness and export-led growth. This would promote domestic investment and labor productivity through Harrod's foreign trade multiplier and Hicks's 'super multiplier', creating a positive cycle of rising competitiveness (Kaldor, 1971b, p. 5).[3] This was the engine of growth for current account surplus countries such as Germany and Japan in Kaldor's time, and it is the essential logic behind China's strategy today. Through Verdoon's law, increasing investment in export industry leads to rising labor productivity gains, which grow faster than inflation (especially when labor is plentiful). Thus, even though real wages are increasing in China, labor productivity is growing even faster, so even with an exchange rate pegged to the USD, the real exchange rate would still be falling.

The easiest way to manage international competitiveness is to devalue a currency relative to the international reserve, but this is an option not open to the US when most trade in goods is priced in USD.[4] The US as key currency suffers from the Triffin (1960) dilemma: it must be plentiful to be an effective world reserve, but to remain a key currency it must be strong. So far the US has been able to 'deficit spend' its way out of most economic slumps and use the high dollar for inflation control. But it has hobbled its most dynamic growth sector, manufactured exports, and become dependent on financial capitalism:

> [T]ransforming a nation of creative producers into a community of rentiers increasingly living on others, seeking gratification in ever more useless consumption, with the debilitating effects of the bread and circuses of Imperial Rome. In addition, the objectives on which successive American governments spent their freely-printed money appeared either so useless or morally repellent—lunar flights or Vietnam wars—as to arouse increasingly universal hostility against the System, both inside and outside the United States. (Kaldor, 1971a, p. 64)

The dollar crisis of the 1970s came about because at least one major beneficiary of the great world export boom, Germany, found that with scarce labor its export growth and wages led to intolerable rates of inflation; in response, Germany decided to reduce its competitiveness by raising its exchange rate and taming growth. This has not yet occurred in China, and the recent financial crisis has led to retreat into US Treasuries as a haven of safety. While the start of this crisis caused an outflow of foreign capital from the US in August 2007,

[3]For a discussion of the distinction between these two multipliers, see McCombie (1985).
[4]Devaluation is effective only when it does not lead to retaliation by others in a global sense.

the return of net capital inflows is quite different from foreign investment into the US private sector. US asset prices are not expected to rise in the near future, as the deleveraging of decades of built-up debt continues to destroy capital. If the US ceases to act as the world's banker, recycling savings back out as foreign direct investment (FDI), and if it cannot continue to run a balance of payments deficit, the international community would lose its largest source of foreign reserves, and world growth could be pulled into a contractionary spiral. Economists need to look for alternatives, including the excavation of past ideas.

Kaldor proposed an alternative monetary regime in 1964 for a 'neutral' international reserve that would discipline all nations to balance their external accounts, and yet offer liquidity in reserves. His commodity reserve currency offered an alternative to the US as buyer of last resort, and provided greater balance in the distribution of development and progress, aiding the decoupling of the periphery from the core. Prior to detailing this plan, the next section will give a brief summary of the basic alternatives to a USD reserve to give context to Kaldor's commodity reserve scheme.

3. International Currencies

Kaldor set out to build the ideal monetary system to solve what he saw as essentially a coordination problem between national policies. His ultimate goal was an inclusive system of stable and widespread growth. The discussion here focuses on the use of an international monetary unit, or international reserve, to resolve such coordination inefficiencies.

Williamson (1983, p. 87) defines international economic order as

> a set of generally accepted rules and conventions regarding the proper way for countries to conduct those of their economic policies that have significant repercussions outside their own border. Conversely, the lack of such an order is characterized by at most weak rules and light-hearted breaches of such rules as are supposed to exist, resulting in countries adopting policies with significant international repercussions entirely at their national discretion.

In broad terms, there are three basic types of international monetary reserve schemes: a key currency system; a global fiat reserve currency issued by a world bank; and a reserve currency backed by some tangible asset such as a precious metal.

The term 'key currency' was popularized by John H. Williams (1943) in a pre-Bretton Woods proposal for the USD to replace gold and sterling. A key currency international monetary regime is one in which a national currency, or a basket of key currencies (such as the IMF's special drawing rights, or SDRs), is universally accepted as a medium for international transactions. A key currency proposal typically rested on the idea of so-called hegemonic core countries in the 'North' and developing, or periphery, countries in the 'South.' The currency of the strongest country or currency union would be the international reserve. Sterling and the US dollar were the preferred reserves when Britain and the US were at the heights of economic power, and even though both currencies were at various times linked to gold, the dominant order in each case would have qualified as a key currency

monetary regime under Williams' definition.[5] Seigniorage benefits to the issuer of a reserve currency are significant, and when other countries are accumulating assets in its currency it can effectively pass adjustment costs on to its investors. The dilemma for key currencies, highlighted by Triffin (1960), is that they must be strong and therefore, to an extent, 'scarce', yet to fulfill their key role must be plentiful too. But if the key currency nation were forced to devalue, the burden of adjustment falls on the periphery countries that hold the currency in reserve.

Key currency proposals are usually favored by the banking sector and international investors of the key country (see Dooley *et al.*, 2004). Along similar lines, Robert Mundell (1961) has proposed the formation of optimal currency zones involving a system of fixed exchange rates among a group of member countries whose national economic policies would be tied to the policies of the core country. Countries outside the optimal zone, in the periphery, could choose a fixed or flexible exchange rate. This system relies on the strength of the key country, which is presumed to have advanced capital markets, high consumption, and can access excess labor in the periphery, which has less sophisticated financial markets.

One economist strongly opposed to basing the international monetary system on a key currency framework was Keynes. Keynes (1942, 1943) proposed an 'international clearing union' (ICU), in essence a world central bank that would endogenously issue its own global fiat reserve currency backed by national trade credit. Such a scheme was anticipated by pre-war German proposals (Guillebaud, 1940) and by E.F. Schumacher (1943) (see Iwamoto, 1997). Triffin (1960) also advocated a world authority empowered with credit-creating powers to ensure an increase in reserves *pari passu* with the expansion of world trade. In contrast the supply of reserves issued by a key country would be limited, lest it forever spend to add dollars to the world system.

Under the ICU a new international unit, called bancor, would be created as a bookkeeping entry at a world central bank. Each country would be given an initial quota of bancor in proportion to the country's share of world trade, and allowed overdrafts according to this quota. Bancor would be a unit of account and a medium of exchange, but not a unit of value: if the system was to ever breakdown, bancor would be worthless. Its use would be limited to the exchange in goods for goods via central banks with accounts at the ICU. Bank-accepted trade bills issued by local banks, backed by bancor at their central bank, could be used by importers. All international trade would be cleared through the ICU. Surplus countries would have a credit and deficit countries a debit balance on their accounts. The ICU could extend loans, but the goal was for accounts to balance in the long run. In Keynes's scheme, surplus country accounts would be penalized by paying interest or through confiscation of their funds at certain points in time. This would encourage the surplus country to spend its surplus buying imports rather than accumulating bancor, and thus balance the accounts of deficit countries (since deficits and

[5]Williams (1943) argued that even under the gold standard, it was the strength of sterling at the height of the British Empire combined with Britain's accommodations with the periphery countries that stabilized the currency regime.

surpluses must add up to zero). Both the Keynes and Triffin plans proposed endogenous international reserves that could grow with world trade, unlike a gold-backed system. However, there was no global counter cyclical mechanism, which was the weakest aspect of the ICU. In contrast at the national level all nations could retain their own fiat monetary system, allowing for counter cyclical fiscal policy and a monetary policy that could target fixed but adjustable exchange rates, with capital controls if and where necessary.

Kaldor accepted the Chartalist view that a nation's fiat money is created and destroyed through credit and given value via the imposition of taxes, or the existence of legal rights and obligations that were the preserve of sovereign jurisdictions. But so long as the world was divided into a number of separate sovereign entities, he felt the creation and management of a world paper currency raised insoluble problems. At an international level there was a continuing need for a 'real' standard (Kaldor, 1971a, p. 42).

A third category of international currency systems are reserve currencies backed by a 'real' standard such as gold, a basket of metals, a basket of commodities, or some other asset. Supporters of the gold standard (Shelton, 2009) believe it to be an automatic stabilizer of external balances, through flexible prices, interest rates and cost competiveness. This assumes a tight correlation between a nation's reserve holdings and the sovereign money supply. But from the 1920s onward the rules of the gold standard game were routinely violated through domestic fiscal and monetary policy initiatives. National fiat currencies became endogenous, domestic prices and wages were sticky, and quantity effects like unemployment and income shocks produced pro-cyclical responses to international shocks. Global imbalances were exacerbated through protectionist policies, and the scarcity of gold meant there was a constant balance of payments constraint depressing world demand. A large country's economic shock would shift the burden of adjustment onto its smaller trading partners, who could choose either to borrow foreign exchange or to contract (and place import barriers to protect domestic employment). This could have devastating spillover effects on trading partners who practiced free trade. More recent ideas on asset-backed reserves suggest that they be based on a portfolio of assets. Plans put forth by D'Arista (2000) and Summers (2006) recommend social investment of the accumulation of reserves in developing countries. Currently, 70% of all foreign reserves are saved in US originated debt.

The Bretton Woods system was a compromise among all three currency regimes. From the outset, the United States pushed for a new gold- and dollar-based system with full expectation that the USD would become a key currency. Keynes had thought the IMF would work along the same lines as his ICU. Expansion of credit could occur with lending from the IMF (as later with the creation of SDRs), and discipline on imbalances (although only for deficit countries) would be imposed by the gold standard. By the 1950s onwards, the Bretton Woods regime morphed into the key currency system we have today.

Early attempts to create countercyclical policies often expounded on a new commodity currency backed by a basket of 30 or so commodities. Proponents included Goudriaan (1932, 1953), Benjamin Graham (1937, 1944), Frank Graham (1941, 1944), Hart *et al.* (1964), Hart (1976) and most recently a

private money commodity-backed proposal by Lietaer (2004).[6] Kaldor and Hart continued to support this idea until their respective deaths in 1986 and 1997, but with next to no political support. Even if the key country, the US, did not go along with it, Kaldor had wanted a localized version for the European Community.[7] In Kaldor's original proposal each country would determine independently its own monetary policy and exchange rate in relation to the CRC. Kaldor's preference was for floating or managed exchange rates for each nation; however, if a currency union was put in place then a CRC currency could somewhat replace the loss of countercyclical fiscal policy.

4. International Commodity Reserve Currency (CRC)

In 'The case as of 1976 for an international commodity-reserve currency' (Hart *et al.*, 1964), Kaldor and his co-authors wanted to achieve four goals.[8] Firstly, resolve the international liquidity crisis of the 1960s, when the limited growth in gold reserves pushed the US dollar into the role of key currency reserve, and growth became dependent on (ultimately unsustainable) US balance of payments deficits. Secondly, they wanted an international monetary system that allowed national monetary and fiscal autonomy, and yet stabilized global imbalances. Thirdly, they wanted to stabilize the terms of trade between primary and manufactured goods, while increasing the availability of food and raw materials necessary for accelerated industrialization. And, lastly, they wanted to bring economic progress to the world's poorest countries and balance the distribution of world growth.

Despite numerous maintenance and set-up technicalities (outlined at length in Hart *et al.*, 1964), the actual operation of the proposed international commodity reserve currency is straightforward. It requires a world commodity 'bank' to maintain buffer stocks of a wide range of storable commodities and to use open market operations to buy or sell a fixed commodity basket in exchange for warehouse receipts. These receipts effectively become the new international currency, which Kaldor called *bancor*, no doubt in deference to Keynes's ICU. Since the bank would finance all commodity purchases through the printing of its own 'money' there is no financial constraint and no borrowing or crowding out in other financial markets.

Unlike buffer stock schemes for individual commodities, the commodity reserve is not intended to stabilize individual commodity prices. All the prices in the basket or index will continue to move in relation to each other, in accordance with supply and demand of particular commodities. However, to the extent that commodity prices reflect common influences, that is, changes in indus-

[6]A complete bibliography of commodity buffer stocks and a commodity reserve currency can be found at http://bufferstock.org/biblio.htm.

[7]Kaldor believed that every country in the European Community could improve its situation if the Common Agricultural Policy was taken out of its fiscal framework and instead financed by newly printed money, which would be accepted by a European Central Bank as a reserve against commodities (Kaldor, 1996, p. 109).

[8]Kaldor drafted the text (Hart, 1991, p. 562); Tinbergen was primarily a signatory (Toye & Toye, 2004, p. 221).

trial activity, which are regarded as the major cause of extreme commodity swings, these price changes will be stabilized through the stabilization of the index (Hart *et al.*, 1964, p. 160).

4.1. The Mechanics of the Commodity Buffer Stock

Central to the commodity reserve system is an international organization (possibly a division of the IMF) that Kaldor called the International Commodity Fund (ICF). Through international agreement the ICF would select a wide range of competitively produced inputs essential to industrialization, global sustainability and human life – foodstuffs, metals, energy resources and so on. Commodities would be stored at the points of origin or along the normal routes of trade where storage facilities exist and where traders can economically give or take delivery. Hart *et al.* (1964) had suggested a buffer stock of 30 commodities, each equivalent to a year's worth of world trade. This was estimated at the time to be worth $20 billion and equivalent to 5–10% of world gross product.[9]

The basket ideally should comprise a large number of standardized and durable commodities (e.g. minimum inventory turnover of once a year), which are widely produced, universally used, and free from significant price manipulation (in which case oil would be excluded). The intrinsic value of each commodity should not be fundamentally changed by their use as a reserve medium. The relative proportions of single commodities in the index would be determined by their average share in annual world trade in the prior three years (periodically re-evaluated. Table 1 presents an example of a basket containing 28 such commodities, broadly based on Hart (1976).

Kaldor acknowledged that there would be some loss in price flexibility (and efficiency) but he believed that this was worth the overall gains in quantity flexibility and stability. It would be regrettable if a sharp change of supply or demand in any one commodity market did not trigger an adjustment in its own price but instead induced compensating changes in the prices of the other commodities in the basket (Hart, 1991, p. 568). To limit these side effects, commodities prone to high price volatility should be excluded from the buffer stock. Any commodity that had a 50% change within six months should be considered for exclusion. This is why oil and coal are omitted from the Hart *et al.* (1964) basket. Precious metals may also be excluded because their price is often influenced by factors unrelated to the global economic cycle.

Commodities with reliable future delivery contracts should be substituted for physical commodities in times of shortage, famine or crises in other security-related commodities. The ICF could roll over these futures positions

[9]Similarly, the World Bank (2009, p. 130) recently estimated that an international stockpile to stabilize international grain prices would require 10% of global production, worth roughly $66 billion, and cost $4–6 billion to maintain ($1.4 billion in storage costs and $3–5 billion of spoilage costs based on losses in high-income countries). Total losses to all consumers from rising food prices in 2007 were estimated at $270 billion (ibid., p. 127).

Table 1. Standardized and storable commodities for possible inclusion in an international commodity reserve currency

Agricultural Raw Material	Edible Oils	Metals and Energy
Cotton	Rapeseed	Copper
Wool	Canola	Zinc
Rubber	Palm Oil	Tin
Wood	Food and Beverages	Lead
Paper Pulp	Sugar	Aluminum
Wheat	Coffee	
Corn	Tea	Natural Gas*
Rice	Cocoa	Ethanol*
Soybeans	Pork bellies, frozen	Bio-diesel*
Oats	Orange Juice, frozen	Carbon Permits*
	Dried Milk	

*Commodities not in previous CRC plans. The suggestion of carbon permits comes from Lietaer (2004).

until the market had recovered its balance (Hart, 1976, p. 7). This would be a substantial improvement over the current situation where food aid is tied to the purchase of products from the donor country. Such aid conditions aggravate the problems of recipient countries by depressing local prices and local production, creating a reliance on imports while stifling the investment necessary for that nation's long-run food security (OECD, 2006).

Storage costs would include rental of facilities, auditing of stocks, spoilage, depreciation and the management of inventories, e.g. turnover costs. Kaldor had proposed that interest might be paid on the first $100 million bancor balance of each country, and that a charge be levied on balances in excess of this amount to cover cost of storage, as in most private stores. Hart *et al.* estimated annual costs of 3–3.5% of the value of the stock, although other estimates have been higher (e.g. Grubel, 1965). The ICF would reduce these costs by buying low and selling high during its stabilization process. Any additional costs could be covered by an annual charge on members, weighted by their holdings. This would also act as a disincentive to accumulate excess reserves due to permanent balance of payment surpluses.

Overall, the social gain from such a global countercyclical policy has been argued to dramatically outweigh the additional costs. Stabilization to the long-run equilibrium price for commodities is conducive for investment and sustainability of small and medium size producers. The public buffer stops negative spillover effects and promotes the efficient production of commodities. It allows quantity insurance, which is currently absent from futures market contracts, and long-run price insurance, which is not available in our short-term futures markets and the CRC will also promote free trade.[10] The primary role of monetary

[10]Indeed such a plan may provide a resolution to the Doha round of WTO negotiations by neutralizing the ability of developed country subsidies to depress world prices.

reform is to remove the international economic system from the key currency model that has caused global imbalances and worldwide monetary disorder (see D'Arista & Griffith-Jones, 2006; Summers, 2006; King, 2006; Reinhart & Rogoff, 2008). A new international currency would allow the US to lower its exchange rate and promote exports, resolving its balance of payments and stopping its march of deindustrialization (Kaldor, 1971b).

4.2. Build-up Period

Initially, the ICF would steadily accumulate commodities before full operation began. Kaldor thought that this might take up to 5 years and could be delayed further during a period of tight commodity markets.[11] Most large nations, even today, hold strategic buffer stocks. Of the $20 billion worth of commodities that Kaldor had proposed in 1964, he calculated $15 billion would come from government stocks. The creation of convertible government stores lessens the need for private stores, and lowers costs in the economy (which should be accounted for when considering the cost of the program). All IMF member governments and private sector stores would be encouraged to release their stocks of selected commodities in exchange for bancor balances. Kaldor specified the payment price to be the highest price for any six month period in the past three years.

Hart *et al.* proposed a fixed initial fiduciary issue of approximately $10 billion bancor. IMF Member governments who hold gold or dollar balances in excess of minimum working balances and as part of their official reserves, would be encouraged to exchange this for bancor balances with the ICF (these holdings would be completely separate from SDR holdings).[12] Member governments would apply their bancor balances, acquired through commodity sales in the first instance, to the repayment of short-term debt owed to other member governments who accept this.

Placing the US debt on the books of the ICF will remove the danger of a run on the US dollar, which is feared if demand for the key currency was to falter due to persistent global imbalances (Roubini & Setser, 2005). The fiduciary issuance is allocated firstly to the key country, the US, if its short-term liabilities outweigh its sale of publicly owned commodity stockpiles, and provided that it undertakes to apply the bancor thus acquired to the repayment of its official liabilities if so desired by its creditors.

Countries are expected to accept bancor since if the basket loses its reserve status it will still remain valuable. With an asset that is not dramatically affected by its use as a reserve, negative spillover effects like beggar-thy-neighbor dynamics or assurance game issues can be contained.

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[11]The operation of the CRC would differ sharply between the initial build up period and the ensuing operation period; see Hart *et al.* (1964) for more details.

[12]Hart *et al.* proposed an initial fiduciary issue of $5 billion and a separate $5 billion bancor issue in exchange for gold, creating a bimetallic bancor standard. The assets that are attained in exchange for bancor that are not commodities could be used by the ICF to pay for storage facilities.

By having a reserve where new issues are fully covered by commodities, the monetary system provides an anchor to the real side of the economy, maximizes its stabilizing effects on effective demand, and ensures solubility against private speculation. Under a CRC each nation is free either to peg its national currency to this unit or allow it to float (Hart *et al.*, 1964, p. 157). National monetary or fiscal policy would be chosen depending on each country's developmental needs. Like Keynes, Kaldor restricted the use of this currency to central banks, but given the 100% backing there seems no reason to maintain this restriction.

4.3. Open Market Operations and Countercyclical Monetary Policy

Kaldor believed that in a well-ordered world economy, where gains from trade are optimally exploited, only natural resources (land and non-renewable resources) impose limits on expansion. The CRC proposal for an international financial architecture was a 'gadget'[13] that operated on both the monetary system and the system of primary-production to promote robust and sustainable manufacturing growth across the developed and developing world. The scheme would coordinate win-win gains for pre-industrial, industrializing and industrialized countries in a global market characterized by generalized increasing returns in secondary and tertiary sectors.

For given technology, commodities are produced with diminishing marginal returns and their prices are determined in a competitive market-clearing process. Manufactures are produced under conditions of increasing returns and prices are on a cost plus mark-up basis (Kaldor, 1976; Spraos, 1989).[14] As industrialization progresses and demand for manufacturing goods increase, inputs to industry, such as commodity supplies will follow, although with a lag. The initial price rise of primary goods will pass on to a price rise in manufactures. Hence, the terms of trade for primary producers may not improve but their income will increase, supporting demand for local consumption and investment. Rising employment in local manufacturing allows for rural-to-urban migration and a rise in agriculture productivity. If output in primary production increases fast enough, then there can be growth in both sectors: demand creates its own supply. This virtuous circle can be cut short if rising commodity prices leads to cost push inflation from rising manufacturing prices and rising wages. In the industrialized countries with floating exchange rates (independent monetary policy) this typically leads to a tightening of national monetary policy, a rise in interest rates, and decreasing demand. This can not only dampen commodity price rises, but with the increased supply already in the pipeline and changing speculative positions it can lead to a commodity price crash.

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[13]Kaldor used this term to characterize the commodity reserve currency in a letter to Sidney Dell, 23 March 1963, cited in Toye & Toye (2004, p. 221).

[14]Kaldor's recognition of procyclicality in commodity markets goes back to his 1934 microeconomic cobweb theory of fixed quantities and flexible prices with production lags. The extension to the macro-economy and global levels with primary and secondary markets made income and effective demand in the developed world the important variable.

Falling commodity prices do not stabilize effective demand:

> The fall in commodity prices of primary producers, by releasing purchasing power, ought, in principle, to generate additional demand within the industrial sector. But the fall in the purchasing power of the primary producing sector—reflected in reduced demand for manufactured goods—pulls the other way; and so does the fall in the scale of world investment in the primary sector which is normally also largely financed by the 'industrial' sector. ... [A]llowing for these effects it seems quite likely that the net effect of a fall in the prices of primary products relative to manufactures is to depress, rather than to stimulate, the level of activity in the manufacturing sectors. (Hart *et al.*, 1964, p. 163)

The ICF would stop the deflationary tendencies of commodity prices by stabilizing the index of goods around a proposed long-run average (e.g. 3 years), by having fixed buying and selling prices with a margin of around 5% (Kaldor, 1974).[15] When the commodity index is low it would buy the commodity basket until the index moved back up, injecting an equivalent amount of reserves into the monetary system, and stimulating demand for imports. When the commodity index is high it would sell the commodity basket and remove an equivalent amount of reserves, moderating export-led growth and stabilizing cost-push pressure on prices. Hence, the ICF offers automatic (non-discretionary) counter-cyclical global monetary policy, with far greater impact on demand than gold or fiat money balances. Commodity reserve liquidity would not be limited by a desire to hoard reserves; nor dependent on IMF loans, the creation of SDR reserves, or a credit creating world central bank that would buy government bonds in the international financial markets. Rather, a commodity reserve would be issued directly to the producers of the commodities in the periphery. Kaldor argued that under this system an increase in primary production would directly result in a proportionate increase in the demand for industrial products, particularly in local manufacturing industries that service primary producers, inducing more investment and creating a super multiplier.

> Thus the balance between the two sectors will be restored through an accelerated rate of industrialization, rather than through cuts in investment in the growth of output in the primary sectors – the latter being the adjustment mechanism that operates through prolonged periods of depressed prices. ... The process of expansion set up by the commodity reserve system may be seen as one which will diffuse demand from the central to the outlying areas of industrialization. (Hart *et al.*, 1964, p. 165)

In moving away from a key currency regime, Kaldor thought the CRC would maintain world effective demand but diffuse it away from the core, promoting balanced growth. This would enable the periphery to play a role in stabilizing growth in the system. We saw such a scenario in the recent commodity boom

[15]Hart (1976) proposed a 10% spread between the bid and ask prices at which the ICF stands ready to buy or sell. For example, if the designated basket unit is priced at B$ 1,000,000 bancor units, the ICF would be ready to buy additional basket units at B$ 950,000 or ready to sell basket units at B$ 1,050,000.

as China industrialized and increased its production of manufactured goods. In 2002 China absorbed more than 8% of total raw material exports of the 'Developing South', making it the third largest market after the EU with 34% and the US with 23% (see Yang, 2006). Chinese imports of raw materials injected liquidity into the periphery and improved the terms of trade of primary producers, which in turn allowed for local investment, industrialization of the manufacturing base, and ultimately a greater diversification of the periphery's exports.

An ICF would similarly offer a stable income to primary producers that could support longer term development strategies, increase local demand and income equitably, increase the opportunities for trade, while ultimately reducing dependence on export led growth coupled with a devalued currency.

With a fiat key currency that is not backed by the stock piling of commodities, and where exporters rely on a devalued national currency and large reserves, there can be an uneven and excess supply of liquidity. As stated above, the key country acts as a world bank, taking funds from savers in the developing country, and recycling this capital back out as foreign direct investment (FDI) or the foreign acquisition of valuable assets in the periphery. If this FDI goes into relatively illiquid investments in the developing world then this may enlarge the supply of finance for productive investments globally, which in turn is a necessary condition for the continued accumulation of 'savings' by the ultimate lenders. However, like most loans, not all are for productive foreign investment projects. In the search for higher yield in liquid markets, funds typically flow into developed capital markets in the form of short-term loans, for tax avoidance in Eurodollar markets, portfolio investment in publicly traded securities, and as speculation in collateralized debt obligations and other derivative instruments (Kaldor, 1964, pp. 33–34). These markets have no capital shortage and the recycling of excess liquidity from the key country only fuels speculative bubbles. Kaldor's desire to manage capital flows echoes the concerns of Frank Graham, an earlier proponent of a commodity reserve currency 'that international finance must be the handmaiden of international trade and that, when she forgot her function and set up on her own account, she made a sorry mess of things' (F. Graham, 1943, p. 335).

By removing the key currency regime, and allowing reserves to be issued by many countries spread widely across the globe, capital and trade imbalances are apt to be smaller. A CRC will refocus growth on industry, employment and trade rather than financial capitalism and leverage, reconnecting our monetary system to the real economy. Without a key currency, surplus countries will have less desire to run a surplus with a particular trading partner and build up reserves.[16] In turn, deficit countries will have to be more responsible for their own domestic and external balances or else face devaluation and inflation. The CRC would help maintain effective demand and world growth by decoupling the core and periphery and allowing independent fiscal and monetary policy that can responsibly stimulate

[16]Hart *et al.* (1964, p. 157) did propose a penalty on countries that deliberately keep their currency low by selling their currency and accumulating reserves at an unduly fast rate; for example, an import blockade, as under the scarce currency clause.

domestic demand through government employment or export-led competition policy with a floating exchange rate. At the same time, competitive devaluations, which generally support large countries over small countries, will be greatly reduced (Kaldor, 1973, p. 88).

Conclusion

Over two thirds of the world's poor reside in rural regions and billions of people are underemployed and condemned to lifelong poverty. Kaldor wanted to maximize global welfare by removing any effective demand or supply constraint arising from macroeconomic coordination failures; he wanted also to ensure that the world operate at the international production possibility frontier. So that 'in the longer run . . . the supply of basic materials . . . would set the limit to the rate of growth of world industrial production and not, as now, the rate of growth of effective demand, emanating from the advanced countries' (Kaldor, 1974, p. 98).

In his Mattioli Lectures, delivered in 1984 just two years before his death, Kaldor (1996) opined that a worldwide buffer stock scheme was still the best solution to remedy the lack of world demand and fix the world trade cycle.[17] The US has over the past three decades experienced deindustrialization and dangerously large inflows of foreign savings. A selection of key commodities to back a new international currency, would not only allow the US to put its house in order, but create a powerful arena for the production of 'green' commodities. The creation of sustainable and secure supply lines of primary products are essential for industrial expansion, supporting solutions to global warming. Stabilizing commodity prices will ensure less waste and more efficient investment in primary outputs. A commodity reserve system is essential if sustainable agricultural and mineral production is to be accelerated. These inputs are not only required for economic progress in the poverty-stricken developing world, but more will be needed to replace the non-renewable inputs that are exacerbating global warming.

The issuance of an international reserve currency in exchange for commodities would connect financial flows with the real economy, supplying the appropriate amounts of liquidity and demand. Direct access of individual countries to reserves through commodity production would help remedy the current crisis of global imbalances, where export oriented countries have an incentive to devalue their exchange rate. While national exchange rates could remain flexible, the issuance of the commodity reserve currency would be spread across the globe rather than being issued by one country, diffusing industrialization and economic progress geographically.

Kaldor had previously coauthored *National and International Measures for Full Employment* (UN 1949) (see Turnell & Ussher in this symposium) only to be criticized for ignoring the risks to inflation. His CRC was another automatic

[17]While Kaldor had grown skeptical of the political viability of a CRC by the early 1980s, and gravitated toward simpler individual commodity buffer stock schemes (see Kaldor, 1983, p. 548), he was no less convinced of the social and economic merits of a CRC.

stabilizer in world trade that would inject liquidity when demand was low, allow independent monetary or fiscal policies, moderate world cost-push inflation, but also impose balance of payments discipline. Without a key currency, countries would have to rectify long-run trade deficits or devalue their currency; unemployment would ultimately have to be resolved with policies that made exports more competitive (Kaldor, 1971b); and the location of industrialization would be diffused and allow for a stronger decoupling between core and periphery.

Given the limitations of domestic policies in the current global downturn, where monetary policy has been weakened due to the banking crisis and fiscal policy can only work effectively with global coordination, the need for easy-to-implement global countercyclical policies is urgent. The CRC would be no more difficult to implement than the trading of carbon permits, which requires the auditing of carbon emissions across the globe. Given the widespread presence of commodity exchanges, the standardization of commodities, and the presence of storage houses, a CRC is a sensible policy in a world of growing insecurity over food and natural resources.

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