

# **The Modern Monetary Theory Perspective on the external economy**

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## **1. Introduction**

There are three types of constraints that impact on decision making in an economic setting: (a) financial; (b) real resource; and (c) political. These constraints can work independently or together to alter the feasible decision-making environment. The problem is that many economists conflate these constraints and produce erroneous analyses as a result. This is particularly the case when it comes to analysing the capacities and opportunities of currency-issuing governments and contextualising this analysis within an open economy setting with trade and capital flows. Modern Monetary Theory (MMT) provides a clear framework for distinguishing between these types of constraints because it accurately constructs the way governments spend and successfully disentangles these constraints in an analytical way in an open economy setting.

In this paper, we consider the way in which MMT constructs the external sector. We argue, in part, that criticisms mounted against this view reflect the fact that much of the mainstream macroeconomics and open economy analysis is predicated on understandings that were relevant during the fixed exchange rate era. In particular, the way fiscal policy constraints are perceived within the mainstream theory are directly related to the ‘constraints’ faced by fiscal authorities during that period who had to ensure they did not compromise the central bank’s primary responsibility to maintain external currency stability. Once exchange rate flexibility freed macroeconomic policy (monetary and fiscal) to pursue domestic policy goals, those ‘constraints’ became inapplicable.

However, many economists, still consider currency vulnerability in the face of global financial trends remains the greatest challenge facing any government, which embarks on an expansionary policy program. The fear of currency collapse is shared by mainstream and many heterodox economists, which in the view of this author has hampered the progress of non-mainstream macroeconomic analysis. While the mainstream economists propose a raft of fictions about both the domestic and external economies to mount their case against MMT, many heterodox economists focus on what they consider to be a balance-of-payments-constraint on fiscal policy. We analyse the ‘balance-of-payments-constrained-growth’ (BPCG) theory and conclude that, if there is a binding constraint, it comes from politics rather than finance or the real economy.

## **2. A real resource starting point**

On August 15, 1971, US President Nixon suspended convertibility of the US dollar, which effectively ended the fixed exchange rates system (Bretton Woods), which had organised international currencies since 1946. After a futile attempt to salvage the broken system (Smithsonian Agreement), the Jamaica Accords in 1976 formally ended the arrangement and the era of fiat monetary systems began.

Under Bretton Woods, central banks had to manage the supply of their currencies to ensure the agreed parities were maintained. An excess supply of a currency in foreign exchange markets required the responsible central bank to purchase that currency using their foreign currency reserves and/or to increase domestic interest rates to attract foreign investment to redress the downward pressure.

But the money supply contraction and higher interest rates pushed unemployment up and if expansionary fiscal policy was used too aggressively to reduce unemployment – putting currency back in the system – it would compromise the central bank’s efforts to maintain currency stability. Consequently, without an increase in gold reserves, increased government

expenditure (injecting currency) had to be matched ('financed') by taxation and if they wanted to spend more than their tax revenue, they had to issue debt (draining currency).

The collapse of Bretton Woods dramatically altered the opportunities available to currency-issuing governments. First, under a fiat monetary system, 'state money' no longer had any intrinsic value. For an otherwise 'worthless' currency to be acceptable in exchange some motivation was required. That motivation emerged because the sovereign government required its use to relinquish private tax obligations.

Second, as the central bank no longer had to defend the floating currency, it followed that there was no financial constraint on government spending. Currency-issuing governments can buy any goods and services that are available for sale in its currency including all idle labour. The only meaningful constraint is the 'inflationary ceiling' that is reached when all productive resources are full employed. This is a dramatic change. Accordingly, we traverse from thinking about financial constraints on government spending and all the negative narratives about the need to 'fund' spending, to a focus on real resource constraints defined in terms of available productive resources and available final goods and services.

Third, logically, the government no longer needs to issue debt and debt issuance serves other purposes which evade public scrutiny (Mitchell *et al.*, 2019).

Thus, it was a major shift in the organisation of the external economy, which spawned the evolution of the modern fiat monetary systems and provided the point of departure for MMT. Accordingly, MMT economists shift the focus from financial aggregates (such as deficit-to-GDP ratios) to the functional outcomes that are desired from public spending given the available real resources. In that regard, the external economy also requires careful analysis because of the role it plays in the availability of real resources both directly through trade but also through financial impacts on the value of the currency.

The shift in focus carries over to the way that the external economy is introduced into the macroeconomic framework (Mitchell *et al.*, 2019; Mitchell, 2023). The interaction between nations is driven, in part, by a desire to expand their respective consumption possibilities. Nations produce to consume. From a material or real resource perspective, a particular nation benefits from receiving goods and services rather than sending them elsewhere.

Exporting goods and services incurs an opportunity cost in the form of real resources that could be used locally being made available to other nations (as raw materials or final products). Imports occur when other nations transfer their real resources to the importing nation, depriving their own citizens of their use. MMT thus starts with the observation that exports represent a cost and imports a benefit. In this vein, trade deficits allow a nation to enjoy a higher material living standard. Trade surpluses are achieved by depriving local citizens of a higher material standard of living – in the sense that they are being underpaid, under consuming, and/or working too hard.

Nations thus incur the export 'cost' to generate benefits that are otherwise unattainable, given their domestic resource base, to enhance the material prosperity of the nation. MMT considers the export cost to be an investment in generating an increased capacity to import to expand consumption possibilities. A trade deficit is a sign that the real terms of trade are working in favour of the deficit nation.

The focus on real resources also has significant implications for how we conceive of fiscal space. The purpose of fiscal policy is not to achieve some financial target, but rather to achieve functional outcomes, such as full employment. Accordingly, MMT considers the desired fiscal position would be whatever is required, given the spending, and saving decisions of the non-government sector, to maintain full capacity output.

Fiscal space is thus a real, not a financial concept. Fiscal space is exhausted when there are no idle resources available for sale. The question then arises as to whether the external economy impacts on the fiscal space. More specifically is there a balance-of-payments constraint on government net spending? We will consider that question in Sections 4 and 5.

### **3. Understanding the financial transactions and trade**

The basic macroeconomic rule is that spending equals income equals output, which drives employment. The starting point in macroeconomics, then, is to consider the determinants of the expenditure sources. Later, the analysis is complicated to include a focus on the supply-side, which leads to the distinction between quantity-adjustment and price-adjustment and introduces the possibility that spending becomes constrained by productive capacity (Okun, 1981).

International trade is a significant determinant of national income movements in most nations, given that total expenditure in any period is the sum of domestic demand (household consumption, business investment and government spending) and net exports. Net exports is the difference between an injection (exports) and a leakage (imports) from the income-expenditure stream. Expenditure on imported goods and services means that some of the national income produced in a period does not return to local firms, which reduces output and income, other things equal. Exports are generated by external factors and boost local production and income and can help offset the imports leakage.

Import spending rises with national income and is also influenced by exchange rate movements and relative inflation rates between nations. Exports are similarly influenced by the real exchange rate as well as economic conditions in the foreign country. So as a nation's economic growth increases, it will import more goods and services. As world growth increases, exports from a nation will typically rise (Robinson, 1947, Part III; Mitchell *et al.*, 2019).

While the impact of trade on the national accounts is broadly uncontroversial, there are many misconceptions surrounding the financial aspects of the transactions between a nation and the rest of the world that are recorded in the Balance of Payments. These misconceptions often motivate erroneous claims about the solvency of national governments, which, in turn, restricts responsible policy choices from being taken. MMT provides a clear framework for understanding the implications of these transactions

A trade deficit means that foreigners have given up more real resources (inputs, final goods) than they have received in return. Why would they do that? The answer is that a trade deficit allows foreigners to accumulate financial assets in the currencies of deficit nations. If the foreigners change their desires to hold financial or other assets denominated in the currency of the deficit nation, then the trade flows will change as the deficit nation's real terms of trade worsen because it becomes harder to get the foreign exchange necessary to maintain the same level of imports.

It is possible that foreigners will have no desire to accumulate financial assets in a particular foreign currency, which means that nation would have to run trade balances. It is also possible that the preference for foreign currency financial assets could change quickly, which could be highly disruptive for the deficit nation. In general, however, these adjustments are not sudden.

We can also extend the MMT insight, that net financial assets can only be created and destroyed in the non-government sector through transactions with the government (central bank and/or treasury), to an analysis of trade.

Consider the following story:

- I wish to buy a Japanese manufactured car, where the manufacturer measures profit and loss in yen.
- The manufacturer maintains a dealer network in, say, Australia and invoices dealers in yen.
- The car dealership accepts the yen-liability but sells the car in Australian dollars (\$A).
- When I pay the dealer, my bank reduces my deposit balance by the price of the car and the balance at dealer's bank is increased by the same amount.
- The Australian central bank records a decrease in reserves for my bank and a corresponding increase in reserves for the car dealer's bank as part of the clearing process, which just means that the ownership of these \$A transfers to the dealer. No new net financial assets are created.
- Alternatively, if I take out a loan to buy the car, then my bank's balance sheet now records the loan as an asset and creates a deposit (the loan) on the liability side. When I hand over the cheque to the car dealer (drawing on the loan), the dealer now has a new asset (bank deposit) via the fact that loans create deposits within the system. Again, no new net financial assets are created.

At this stage, the export surplus (1 car) manifests as an accumulation of \$A assets in the form of a bank deposit (or equivalent). What happens next depends on the aspirations of the manufacturer. There are several options:

1. Require the invoice to the dealer to be paid in yen.
2. Leave the sales revenue in \$A accounts at Australian banks.
3. Purchase \$A-denominated assets (financial or otherwise).

A currency mismatch would arise if the car dealer decides to pay the invoice from the manufacturer in yen. Accordingly, after deducting profits, the car dealer will then negotiate an \$A for yen sale in the foreign exchange market (probably via their bank). That sale can only proceed if a current yen holder desires to hold \$A. Once the contract exchange takes place, the car dealer transfers the yen purchased from the counterparty to the Japanese bank of the car manufacturer (ignoring almost certain hedging arrangements).

The resulting financial effects are: (a) The \$A balances in the Australian financial sector remain the same, only the ownership of the balances changes; (b) The yen balances in the Japanese financial sector remain the same but ownership has transferred from the Foreign Exchange dealer to the car dealer and finally to the car manufacturer. If the manufacturer decided to accept payment of the invoice in \$A (then the foreign exchange market transaction would be unnecessary) and the transaction would just mean that the Japanese car company would have a new \$A financial asset (bank deposit). In summary, the net export surplus does not increase the yen or \$A balances – only the ownership of these currency holdings changes.

What would happen if the Japanese car firm accepted payment in \$A assets and bought Australian Government debt with the \$A-denominated bank deposits? In this case, the Japanese car company would instruct its agent to put in an order for the bonds and the firm would instruct its Australian bank to transfer the \$A bank deposit to the favour of the bond seller (which might be the central bank). The Japanese car maker's lawyers or representative, in turn, would receive the bond certificate and the Australian government's foreign debt rises by that amount. In this case, the Australian Government promises, on maturity of the bond, to credit the bank account of the ultimate holder of the bond with the face value of the bond plus interest and debit some account at the central bank (or whatever specific accounting structure is involved with bond sales and purchases).

In other words, this transaction merely amounts to substituting a non-interest bearing reserve balance for an interest-bearing Government bond. That transaction can never present any

problems of solvency for a sovereign government despite many commentators (and economists) arguing that without the foreign funding, the government would have no financial viability. The corollary to this narrative is that the foreigners could suddenly change their preferences and the government would become insolvent.

Let's clear that misconception up using Chinese trade surpluses against the US as an example and drawing on the understanding we have achieved to date. China automatically accumulates US-dollar denominated claims because of these surpluses. They are the 'reward' for running the real terms of trade in favour of the US. These claims are initially held within the US banking system and can manifest as US-dollar deposits or interest-bearing bonds. The difference is immaterial to how the US government spends.

Of course, the US car worker in Detroit who endures unemployment because of the cheaper imports coming from China, is unlikely to consider the superior real terms of trade the US enjoys an advantage. But the US, overall, benefits from China's willingness to deprive its citizens of the use of its own real resources so that it can net ship its 'labour' and other real resources embodied in the exports to other nations.

What would happen if the Chinese holders of US government debt decided to liquidate their holdings of US government debt that have been accumulated using the \$US-denominated trade surpluses? This could be done slowly or quickly. A rapid liquidation (conversion into Chinese currency) would devastate the Chinese wealth stored in those \$US assets because the \$US would depreciate significantly. Such a liquidation would have no bearing on the US government's capacity to buy goods and services for sale in US dollars but would seriously undermine the international competitiveness of China.

#### **4. The external sector and sustainable policy space**

The late Canadian economist Harry Johnson (1969: 18) noted that:

The adoption of flexible exchange rates would have the great advantage of freeing governments to use their instruments of domestic policy for the pursuit of domestic objectives, while at the same time removing the pressures to intervene in international trade and payments for balance-of-payments reasons.

A flexible exchange rate regime maximises the policy space for government to pursue domestic objectives. Once a nation adopts a currency peg of any description (fixed exchange rate, dollarisation, currency board, etc) it loses its full currency sovereignty and compromises domestic policy aspirations.

In this section, we develop a concept of sustainable policy space. The well-known sectoral balances framework, which is derived from the national accounting framework can be depicted graphically (see Mitchell *et al.*, 2019).

The sectoral balances accounting statement is written:

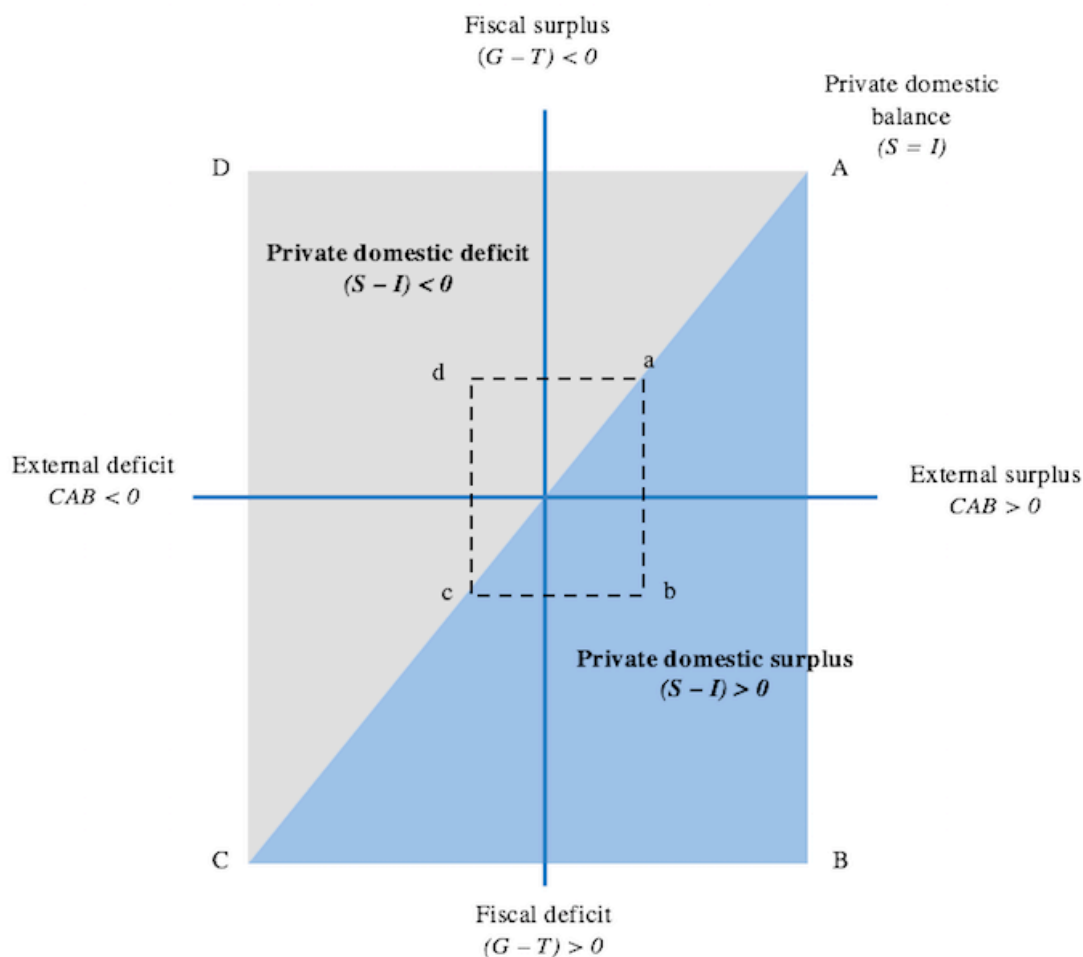
$$(1) \quad (S - I) = (G - T) + CAB$$

where  $S$  is household saving,  $I$  is private capital formation,  $G$  is government spending,  $T$  is taxation revenue and  $CAB$  is the Current Account balance (which is the sum of exports ( $X$ ) minus imports ( $M$ ) plus net external income flows ( $FNI$ )).

Equation (1) is interpreted as meaning that government sector deficits ( $G - T > 0$ ) and current account surpluses ( $CAB > 0$ ) generate national income and net financial assets for the private domestic sector, which must then be saving overall ( $S > I$ ). Saving overall is different to the residual flow of saving that is left after household consumption decisions are executed.

Conversely, government surpluses ( $G - T < 0$ ) and current account deficits ( $CAB < 0$ ) reduce national income and undermine the capacity of the private domestic sector to add financial assets.

Figure 1 Sustainable policy space



Source: Mitchell *et al.* (2019).

In Figure 1, all points above zero on the vertical axis represent a government fiscal surplus and all points on the vertical axis below the origin denote government fiscal deficits. Similarly, all points to the right of the origin on the horizontal axis denote external surpluses and all points to the left of the origin on the horizontal axis represent external deficits. These balances are usually expressed as shares of GDP. Clearly, the origin of both axes denotes a position where all balances are equal to zero.

We also know that when the private domestic balance is zero ( $S = I$ ), then the government fiscal deficit (surplus) will equal the external deficit (surplus). Thus, the diagonal 45-degree line (AC) shows all combinations of government fiscal balances and external balances where the private domestic balance is zero.

At points a and c, there is a private domestic balance. Point b corresponds to a fiscal deficit and an external surplus. Thus, the private sector must be engaging in positive net saving. Then between points b and a, and b and c, net saving by the private sector is falling until private domestic balance is achieved at points a and c, respectively.

Similarly, at d, the private domestic sector is net spending. Between points d and c and d and a, net spending by the private sector declines until private domestic balance is achieved at points a and c respectively.

We can generalise this knowledge and conclude that all points above the 45-degree line on each side of the vertical axis correspond to private domestic sector deficits and all points below the 45-degree line on each side of the vertical axis correspond to private domestic sector surpluses.

Several observations are then possible. First, for a sovereign, currency-issuing government, all combinations of the sectoral balances represented by the points in the four quadrants are permissible. With private sector spending and saving decisions combining with the flows of income arising from trade with the external sector driving national income, the government sector can allow its balance to adjust to whatever magnitude is required to maintain full employment and price stability.

For example, when a trade deficit coincides with overall private domestic sector saving, the drain on aggregate demand requires the government to run a deficit of sufficient size to ensure that total spending is sufficient to absorb the real productive capacity available in the economy.

Alternatively, if there is a trade surplus, which adds to total demand and the private domestic sector is in deficit, then the government has to ensure it ran a surplus of sufficient size to ensure that the economy does not overheat and exhaust its productive capacity. The strong economy would be associated with robust tax revenue growth, which would help the government achieve its surplus. Discretionary adjustments in spending and taxation rates might also be required.

Second, while these combinations are permissible, the private domestic sector cannot easily sustain deficits permanently because they manifest in an increasing stock of debt. There is a difference, however, between private domestic deficits driven by consumption expenditure and those driven by capital expenditure. In the latter case, a capital importing nation, for example, may well record private domestic and external trade deficits as firms invest in productive capital, which delivers a profitable rate of return, that, in turn, allows the increasing indebtedness to be serviced. In that case, the private domestic sector may be able to sustain deficits while economic growth is uninterrupted.

The process of private debt accumulation is limited because at some point the susceptibility of the private balance sheet to cyclical movements (for example, rising unemployment, falling sales) increases and the risk of default rises. The only unambiguously sustainable position is for the private domestic sector to be in surplus. An economy can absorb deviations from that position but only for short periods. Thus, it is only the area ABC that can be considered the sustainable policy space available to governments that issue their own currency.

Third, any imposition of fiscal rules (for example, the 3 per cent threshold in the EMU Stability and Growth Pact), will shrink the sustainable fiscal space significantly. An unconstrained government can always utilise the available space to ensure aggregate demand is sufficient to maintain full employment and price stability. While the external surplus nations have more policy flexibility when operating under a fiscal rule than external deficit nations, the fact remains that the allowable fiscal deficits may be insufficient to maintain the aggregate demand necessary to sustain full employment.

The policy inflexibility facing nations which run external deficits and simultaneously must operate under fiscal rules becomes even more restrictive. When such an economy experiences a negative economic shock significant enough to drive the private domestic sector to reduce its spending and target a sectoral surplus, the extent to which the fiscal deficit can be used to absorb the loss of overall aggregate demand is very limited. It is highly likely that such an



economy will experience enduring recessions because of the artificial fiscal rules (restrictions) that are placed on its government.

However, the contention that policies that situate the economy in the area ABC are sustainable is contested by those who assert that nations must ultimately sustain growth rates consistent with trade balance. This view is broadly referred to as ‘balance-of-payments-growth-constraint’ (BPGC) theory, which we turn to now.

## 5. The Balance-of-Payments Constraint debate

Critics essentially assert that MMT is flawed because it doesn’t recognise the fiscal limits imposed by the need to maintain a stable trade balance. Much of this argument is based on fixed exchange rate logic, despite being applied to nations adopting flexible exchange rates. A hangover from the fixed exchange rate period is the view that trade deficits are unsustainable.

Belkar *et al.* (2007: 1) state:

Perhaps the key concern is that countries in this situation could be on a path to insolvency, building up excessive net foreign debt, raising the prospects of default and/or a sharp reversal in capital flows, which might force an abrupt and costly adjustment ... Also, large deficits and rising indebtedness could leave countries more vulnerable to adverse external shocks (including a change in sentiment of foreign creditors).

Clearly under fixed exchange rates, persistent current account deficits are problematic and compromise the ability of nations to pursue domestic policy targets. During the Bretton Woods period, nations endured recurring ‘stop-go’ growth cycles, where fiscal authorities would be forced to tighten fiscal policy and create unemployment to support their central bank’s efforts to stabilise the currency in the face of external deficits. Then, to address falling political popularity, they would stimulate the economy, which would increase import expenditure and precipitate a new round of currency pressures (Hood and Himaz, 2017).

Some economists point to the UK experience in the 1992 as evidence of the damage that speculative capital can wreak on a nation through the external sector, and, as a result, most economists urge governments to reduce their current account deficits and target surpluses. Unfortunately, these critiques fail to trace the source of the 1992-93 currency crisis, which demonstrated that fixing exchange rates between economies that are disparate in structure and performance will always fail with mobile capital (see Mitchell, 2015, for a detailed analysis).

The problem is that, even though most of the world has moved to flexible exchange rates, Black Wednesday, and similar crises under fixed exchange rates, have become the model for those who predict that the amorphous financial speculators will destroy a currency if governments run fiscal deficits and/or current account deficits. Even heterodox economists (Post Keynesians, Marxists) mount fears of insolvency and currency instability arising from external deficits (see for example, McCombie and Roberts, 2002; Epstein, 2020).

While mainstream economics is predicated on a confusion between financial and real resource constraints, Post Keynesians and Marxists often conflate political constraints with financial constraints, especially when considering the balance of payments. They use the BPCG framework to claim that attempts by the government to stimulate growth will fail if they result in current account deficits. In terms of Figure 1, they argue the sustainable area is much smaller than we demonstrated in Section 4. We argue here that the balance-of-payments-constraint can only be understood in political terms and says nothing about financial and/or real resource constraints. In that regard, the BPCG approach does not provide a basis for discrediting MMT.

The BPCG approach grew out of the work of Hicks (1950), Kaldor (1957, 1970, 1971, 1978, 1989) and Thirlwall (1979). While mainstream growth theory posits that the constraints on progress are to be found on the supply-side (technology, population, etc) with the demand-side (expenditure) always adjusting to ensure there is no idle capacity along the growth path, Post Keynesian approaches, following Marx, Kalecki and Keynes seek to shift the focus to the demand-side constraints. However, the BPCG approach places a particular meaning on the demand-side constraints. It is not domestic demand failures that ultimately matter but export demand. Mitchell (2023) considers this literature in some detail.

Kaldor (1957: 593) argued that ‘the general level of output at any one time is limited by available resources, and not by effective demand’ and thus characterised the shortage of labour as the binding constraint. Clearly, at full capacity no further real output will be forthcoming which is a central MMT proposition. However, in his later work, Kaldor (1970, 1978) abandoned that view, and, instead, claimed that it was export demand that limited a nation’s growth potential. He assumed that export revenue was the only source of expenditure injection, which, in turn, induced increases in domestic expenditure. Accordingly, after an export boost, domestic expenditure would rise on the income stimulus and once the new leakages equalled the initial external exogenous boost, the growth constraint would reassert itself because the nation would run out of reserves to purchase its imports. In other words, growth was only possible through the accumulation of foreign exchange reserves via export demand.

Kaldor (1970: 146) summarised his long-run relationship between aggregate output and export spending using the Harrodian foreign trade multiplier, which he reinterpreted as the growth constraint:

$$(2) \quad Y = \frac{1}{m} X$$

where  $Y$  is aggregate output,  $X$  is total exogenous exports, and  $m$  is the marginal propensity to import.

Thus, in the absence of any other exogenous spending sources, output growth will ultimately be limited to the rate that is consistent with a trade balance. Importantly, there must also be some adjustment process that ensures that balance, which in Kaldor’s approach is exclusively determined by induced income changes rather than price changes.

From an MMT perspective, Kaldor’s treatment of government spending, which we typically consider to have an autonomous or discretionary component, is problematic. Kaldor (1970) assumed that government spending was financially constrained by endogenous changes in tax revenue and always adjusts to those changes, thus denying the ability of government to run persistent deficits or surpluses. Kaldor (1971: 7) also claimed that using fiscal policy to increase ‘production and employment through a stimulus to domestic demand would ... increase imports relative to exports; this would have brought a downward pressure on sterling’. It is surprising that heterodox economists ever accepted this neoclassical argument against discretionary fiscal interventions.

Another interesting deviation by Kaldor from previous Keynesian growth theory was his rejection of Harrod’s investment duality (Harrod, 1939), where capital formation: (a) added to immediate aggregate spending; and (b) augmented future capacity, which then required growth in future spending to absorb that productive potential and avoid recession. Kaldor considered it was exports that were dual in nature because they not only added to total spending but also created extra space (through foreign exchange earnings) for import spending to increase.

This duality is at the basis of the BPCG theory, formalised by Thirlwall (1979), which asserts that the long-run growth process is constrained by a nation’s exports, assuming the real

exchange rate is constant and that balance of trade is zero (see also McCombie and Thirlwall, 1994).

Thirlwall (1979: 429) was investigating ‘why growth rates differ between countries’ and criticised the neoclassical approach for ignored the fact that ‘it is demand that ‘drives’ the economic system to which supply, within limits, adapts’ (p.429). This, in turn, focused his attention on the ‘constraints on demand’ (p.429).

For Thirlwall (1979: 430):

The importance of a healthy balance of payments for growth can be stated quite succinctly. If a country gets into balance of payments difficulties as it expands demand, before the short term capacity growth rate is reached, then demand must be curtailed; supply is never fully utilised; investment is discouraged; technological progress is slowed down; and a country’s goods compared to foreign goods become less desirable so worsening the balance of payments still further, and so on. A vicious circle is started. By contrast, if a country is able to expand demand up to the level of existing productive capacity, without balance of payments difficulties arising, the pressure of demand upon capacity may well raise the capacity growth rate.

Note his reference to the ‘balance of payments’ is somewhat of a misnomer because he is really talking about the trade balance.

Following Kaldor, Thirlwall starts with a strict condition on the growth rates of exports and imports

$$(3) \quad P_{dt}X_t = P_{ft}M_tE_t$$

where  $X$  is the volume of exports,  $P_d$  is the home currency price of exports,  $M$  is the volume of imports,  $P_f$  is the foreign currency price of imports,  $E$  is the nominal exchange rate, and  $t$  is time.

In growth terms, balance of payments equilibrium requires that growth in export revenue continuously equals the growth in import expenditure

$$(4) \quad p_{dt} + x_t = p_{ft} + m_t + e_t$$

where the lower-case letters depict growth rates.

Thirlwall adopted the standard assumptions about the determinants of exports and imports and assumed that the ‘Marshall-Lerner condition is just satisfied or ... relative prices measured in a common currency do not change over the long run’ (Thirlwall, 1979; 434).

Then, imposing a balance of payments equilibrium condition (which is really a trade equilibrium), we get

$$(5) \quad y_{Bt} = \frac{1}{\pi} x_t$$

where  $y_{Bt}$  is the balance of payments equilibrium growth rate and  $\pi$  is the income elasticity of demand for imports and is assumed to be greater than 0.

Thirlwall (1979: 437) used this simple expression to assert that if a nation wishes ‘to grow faster they must first raise the balance of payments constraint on demand’ and that must come from increasing exports and/or reducing the income elasticity of imports.

What mechanisms did Thirlwall envisage that makes (5) binding on growth? McCombie (2011) says that:

The rationale behind the law is that no country can grow faster than its balance-of-payments equilibrium rate for very long, as its level of overseas debt to GDP ratio will grow to levels that will precipitate a collapse in international confidence, the downgrading of its international credit rating, and a sovereign debt and currency crisis.

Setterfield (2011: 397) expresses this in a different way:

a fundamental premise of BPCG theory in its original form is that we *must* observe trade balance, either: a) because countries are *unable* to run chronic trade deficits (than cannot attract permanent net inflows of financial capital from abroad); or b) because countries are *unwilling* to run chronic trade deficits (they do not wish to attract permanent net inflows of financial capital from abroad, because of the resulting accumulation of foreign indebtedness and consequent debt servicing commitments) (emphasis in original)

In one conception, it is the alleged power of global financial markets that impose the constraint, and, in the other, it is the choice of governments, presumably based on a fear of the former. Importantly, the first premise is only relevant to a fixed-exchange rate regime, while the second premise is best understood as a political constraint.

Johnson (1969: 19), long ago, countered the argument that flexible exchange rates would be ‘unstable ... jumping about from day to day’:

... in response to such changes in demand and supply — including changes induced by changes in governmental policies — and normally will move only slowly and fairly predictably. Abnormally rapid and erratic movements will occur only in response to sharp and unexpected changes in circumstances; and such changes in a fixed exchange rate system would produce equally or more uncertainty- creating policy changes in the form of devaluation, deflation, or the imposition of new controls on trade and payments

While the fixed exchange rate system was ultimately derailed by speculative capital flows, which threatened exhaustion of the foreign exchange and gold reserves of nations recording trade deficits, no such constraints impact on nations running flexible exchange rates.

Further, the long-run constraint is not binding if the capital account offsets the current account deficit. The introduction of financial flows on the capital account negates the Thirlwall assumption that exports are required to pay for imported goods and services. In other words, a nation could record permanent trade deficits, without degrading its currency.

Belkar *et al.* (2007: 4), representing the ‘modern’ central banking perspective under flexible exchange rates, argue that:

The current account balance need not ... be seen by itself as a reliable indicator of vulnerabilities ... The fact that Australia has managed to sustain investors’ confidence is evident in the maintenance of the current account deficit at an average of around 41/2 per cent of GDP over two decades combined with a real exchange rate showing no discernible trend over the same period.

So, in the case of financial flows, the maximum BPCG output level would be below the possible output level. The question then is at what point do the net financial inflows stop. Some writers have suggested that “that the propensity of ... [net financial inflows] ... to boost growth must be regarded as a strictly short-run result ... [and] ... cannot represent the long-run equilibrium growth rate” (Setterfield, 2011:408). However, that conclusion remains purely an assertion. Why has Australia, for example, been able to run persistently large current account deficits for extended periods of time without any observed collapse in the currency or any debt crisis?

Belkar *et al.* (2007: 28) note that a nation can have ‘a number of institutional features that help to lessen its vulnerability of external shocks’. They itemise these features: ‘Stable government, credible and sustainable monetary and fiscal policies, a sound financial system based on efficient regulation and supervision, effective legal and accounting frameworks, and transparent and open markets for factors of production and outputs’ (p. 29). These features allow a nation ‘to be resilient in the face of large nominal exchange rate fluctuations’ and provide an attractive basis for attracting a stable volume of capital inflows.

Palumbo (2009: 363) also notes that later in his career, Kaldor (1989) effectively abandoned his earlier position ‘as he applies the model to the analysis of actual processes of growth in real economies’. Post Keynesians who consider the BPCG concept to be an eternal verity and a major flaw in MMT appear to have lost sight of Kaldor’s shift.

Another curious aspect of the popularity of Thirlwall’s law is the adherence to a long-run equilibrium separate from the short-run. Neoclassical theory has always considered such a distinction to be significant and the temporal separation into short-run periods and some distinct long-run period has been used to attack policy-activism by government. However, Kalecki, among others clearly rejected this temporal dichotomy. King (2002: 54) in summarising Kalecki’s approach, wrote that one characteristic was:

There is no such thing as the long run, defined independently of the set of short periods which constitute it. The notion that neoclassical equilibrium analysis applies in such a long run is profoundly mistaken.

## **6. Additional considerations with respect to the BPCG theory**

### **6.1 Flexible exchange rates and inflation**

BPCG theory leads to conclusion that if the markets ‘sell-off’ a currency, the increase in import prices and resulting inflation will negate any real income gains that might be made through domestic expansionary policy. Clearly, exchange rate movements influence real value of the nominal incomes produced. Non-tradable goods and services will be much less influenced by exchange rate movements than direct imports. In many cases, these goods and services will have negligible exposure to exchange rate movements. The provision of many services, for example, will have little variability to exchange rate fluctuations.

The extent to which movements in domestic prices are influenced by shifts in import prices arising from exchange rate movements depends on the degree of ‘pass through’ and the importance of imported goods and services to the overall basket that determines the workers’ material living standards.

The estimates of ‘exchange rate pass through’ (ERPT) are highly variable and depend on many factors including the extent of the exchange rate shift, how much spare capacity there is in the economy, the adjustment costs incurred to adjust prices, the degree of import competition, etc. (see for example, Taylor, 2000).

The sensitivity of domestic inflation to changes in import prices is also important. ERPT might be high and rapid but this sensitivity might be low and drawn out, making the overall impact inconsequential. There is also the question of time lags and the sum of the two impacts can take years to manifest.

While it is difficult to statistically disentangle these separate effects, Bailliu *et al.* (2010: 1) conclude that ‘a substantial literature has shown that the correlation between changes in consumer prices and changes in the nominal exchange rate has been quite low and declining over the past two decades for a broad group of countries’ (see also Parker, 2014; Forbes, 2015).

Forbes (2015) concluded that:

First, contrary to common belief, exchange rate movements don't seem to consistently have larger effects on prices in sectors with a higher share of imported content. Second, exchange rates don't seem to consistently have larger effects on prices in the most tradable and internationally-competitive sectors. Third, the effects of exchange rates on inflation – and even just on import prices – do not seem to be consistent across time. Most of what I learned in grad school on this topic no longer seems to apply.

## 6.2 Living beyond the nation's means

Proponents of the BPCG theory construct trade deficits as signalling a nation 'living beyond its means'. The excess of investment over saving can only be countered with the net accumulation of foreign claims on the nation. The proponents of this view then claim that the nation's potential growth path is lowered because local profit retention and hence local investment is reduced.

There are several issues. From a consumption perspective, it is undeniable that for an economy, imports represent a real benefit while exports are a real cost. Thus, net imports means that a nation gets to enjoy a higher material living standard by consuming more goods and services than it produces for foreign consumption. Recognising this, does not mean we should disregard a current account deficit.

First, it is true that foreigners (surplus nations) build up financial claims in the currency of the deficit nation. If the government allowed, they might liquidate these claims purchasing real estate (for example, Russian and Chinese property acquisitions in London), which might undermine the prosperity of the local residents (for example, through housing affordability issues). But the nation state can legislate whatever restrictions they like in this regard and prevent foreigners purchasing strategic assets.

Second, the foreigners might liquidate their local currency holdings in forex markets. The reason that nations can run external deficits is because foreigners are willing to exchange their exports for financial claims in the local currency. That preference could change at any time. Clearly, the deficit nation gains the terms of trade benefit while the preference holds. But if the preference changed suddenly, then the deficit nation may be exposed to rather harsh adjustment costs. That possibility should always be recognised. But major sell-offs of currency holders would also expose the selling parties to exchange losses if a significant exchange rate depreciation resulted.

Third, if the local currency holdings end up in the hands of speculators, which implies the motivation is different from a trading entity, the nation state can always impose capital controls to protect its currency (see Section 6.4)

Fourth, more problematic is that foreign interests may seek to use their financial clout to manipulate the political system and the public through media domination. However, strict campaign funding and media ownership rules can militate against these negative consequences.

## 6.3 Trade deficits and deindustrialisation

Some argue that persistent external deficits accelerate the process of deindustrialisation (loss of manufacturing capacity), which reduces opportunities for high-skilled, well-paid employment, damages productivity growth and innovation, and leaves the nation reliant on imported goods and services. There are often arguments made that a nation needs to protect local manufacturing to ensure self-reliance in the event of war. Which means that a government can always adopt a forward-thinking industry policy to expand domestic industry, spawn

innovating research and development, upskill the workforce, build export capacity, etc, as long as it has available real resources or can acquire them from abroad. An MMT understanding allows us to appreciate that there would be no financial impediment for a government building national industries, funding research and development, providing first-class universities and apprenticeship training and the rest. If a nation with its own currency slides into oblivion by closing its manufacturing sector, cutting career public sector jobs and relying on low-paid and precarious service sector jobs for employment creation, then that has little to do with running external deficits, and everything to do with political choices.

Further, there are other reasons for maintaining a manufacturing sector, which include maintaining infrastructure as part of a defence strategy and building self-sufficiency in essential goods and services (such as health care products).

#### 6.4 The role of capital controls

The BPCG literature suggests that governments must prioritise the appeasement of international investors over domestic policy goals such as full employment. Clearly under Bretton Woods, damaging speculative attacks on national currencies was a factor because the speculators knew that in the short-run, the central bank would try to stabilise the currency at the agreed parity and as a result, the short-sellers could reap havoc. As a result, governments imposed recessed conditions on their populace from time to time to head-off speculative attacks.

The MMT position is that ultimately speculative financial flows not directly relating to reducing exchange rate risk in real productive activities should be outlawed. But in lieu of that being achieved through global cooperation, other means must be found by governments to defend their currencies in the event of a speculative attack.

Capital controls have proven to be an effective strategy to restrict the free movement of capital across borders in either direction. Mitchell (2023) discusses the types and uses of capital controls in detail.

While there are various forms of controls that can be imposed, the important point is that they free the central bank from directing monetary policy towards defending the nation's currency parity and allow the fiscal authorities to pursue demand management policies, which prioritise domestic targets, such as full employment.

While mainstream economists claim that the financial markets will always subvert capital controls, Rodrik (2010) notes that:

Even if true, evading the controls requires incurring additional costs to move funds in and out of a country – which is precisely what the controls aim to achieve. Otherwise, why would investors and speculators cry bloody murder whenever capital controls are mentioned as a possibility? If they really couldn't care less, then they shouldn't care at all.

The balance of payments should not be an issue of concern for governments when designing policies to advance the well-being of their citizens. All open economies experience fluctuations in their external balances. While these fluctuations were problematic under fixed exchange rates, the exchange rate does the adjustment under a flexible system. There is no balance of payments constraint facing a nation in this regard.

#### 6.5 The plight of poor nations and industry policy

Noting that a currency-issuing government is not constrained in its capacity to generate full employment through appropriate fiscal policy settings is not the same thing as saying that

achieving this desirable goal can rescue nation from poverty. The fact that such a government can spend its own currency to bring idle resources back into productive use does not mean that it can avoid the external factors that can constrain material prosperity. A currency-issuing government in a poorer nation, particularly one that is dependent on imported food and energy, faces additional constraints that cannot be easily solved with increased fiscal deficits.

But this insight just reinforces the initial observation that the ultimate constraint on material prosperity is the real resources a nation can command (people, productive capital, and natural resources). The reality is that if a nation that is dependent on imported food and/or energy, cannot find sufficient demand for its exports, then the capacity of the currency-issuing government to alleviate poverty is limited. While this might appear to be a 'balance of payments constraint', it is better conceived as a real resource constraint arising from spatial inequalities in the unequal distribution of resources.

MMT considers the only effective way to resolve real resource constraints that operate through the balance of payments is for all nations to share responsibilities mediated through a new multilateral institution that would replace the failed World Bank and IMF. Such an organisation would be required to ensure that disadvantaged nations would have access to essential real resources at fair terms (see Mitchell and Fazi, 2017).

Further policy initiatives would be required including: (a) outlawing speculation in financial markets on food and other essential commodities; (b) multilateral agreements to end financial market speculation that has no necessary relationship with improving the operation of the real economy; (c) use of import controls on luxury items that only the rich enjoy would provide more external space to import essentials; rewarding nations that restrict their own capacity to export commodities that are injurious to global well-being (such as coal).

This discussion also feeds into the need for industry policy, given the problem facing less developed nations is the lack of a stable industrial base. Nations that trade in industrial goods enjoy more stable prices in international markets than primary commodity exporters, who endure large swings in their terms of trade, which make it difficult build viable manufacturing sectors (Corden and Neary, 1982). Mitchell (2023) argues that nations that chose a state-driven import-substitution approach to industrialisation grew strongly without an export-bias. Further, the reason that growth was not sustained in the 1970s is because the IMF and World Bank forced nations into abandoning import-substitution strategies in return for currency support, not that such strategies failed. Import-substitution strategies increase self-reliance and allow a nation to better avoid the damage from fluctuations driven by currency speculation (see also, Rowthorn, 1981; Chang, 2007; and Cherif and Hasanov, 2019).

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