MMT and International Economics

Ivan Invernizzi

- I need to thank:
- Robert Cauneau
- Steve Laughton
- Paolo Bonacina

Currency as public monopoly

• Currency as public monopoly: the state is the single supplier of what is needed to pay tax denominated in its specific unit of account.

What about banks?

- Yes, commercial banks also create and provide tax credit, but within the framework dictated by the state.
- Because of that, they have to be considered agents of the state, that instead of providing-selling tax credit in exchange for real resources (as the treasury does) provide them in exchange for financial assets - the bank purchases the borrower's signed note.
- Moreover, in order to operate banks need a reserve account at the central bank, a public entity, and it is the state that dictates the parameters within which they must operate in order to keep their reserve accounts (the CAMELS rating system).

The supply management of a monopolist can fall within two extreme approaches:

- One in which the monopolist of tax credit (money) <u>dictates the</u> <u>quantity supplied</u> and lets the demand determine the terms of exchange (the price of currency in real terms: what needs to be provided or done to get more of it)
- One in which the monopolist of tax credit lets the demand dictate the quantity of tax credit supplied, and then decides to <u>dictate the terms</u> <u>of exchange.</u>



You could choose to fix the number of coffees you would accept to supply every day, and let their price (their terms of exchange) adapt to it by changing every day in response to the level of demand.



 Or, at the opposite end of the spectrum, you could fix the price of the single espresso cup and adapt the quantity supplied to the level of daily demand.



- With the first approach, the terms of exchange (price) of the goods is a function of demand: the higher the level of demand the higher the level of prices.
- With the second approach, <u>the price completely</u> stops being a function of demand; just the quantity is.

Despite who is buying it

- The demand for coffee *isn't constant*,
- If the supply of coffee is able to follow,
- The supply will allow the price of coffee remain constant

Increasing the supply of coffee cups to accommodate an increase in demand isn't forcing people to drink more: no supply side "pressure" to increase the quantity From monopoly of coffee to monopoly of currency

- Urge for coffee = Taxes in a currency
- Demand for coffee = demand for currency = things for sale in exchange for currency
- Supply of coffee = public spending

From monopoly of coffee to monopoly of currency

Accommodate demand for espresso = Accommodate demand for currency (things for sale in currency – labor supply for currency)

- Accommodate demand for espresso = Accommodate demand for public spending (at a given the level of taxes)
- Accommodate demand for espresso = Accommodate demand for public deficit
- Accommodate demand for espresso = accommodate "demand" for trade deficit (accommodate also for foreign demand of local currency)

Is the demand for currency constant? No If you want to maximize the stability of the term of exchange of the currency the <u>quantity supplied</u> <u>must accommodate its demand: public spending</u> <u>should be elastic</u>

- Is demand for local currency from abroad constant? NO!
- Is foreign saving desire of domestic currency constant? NO!
- Is net saving desire of domestic currency constant? NO!
- Elastic public deficit and trade deficit are needed to accommodate demand for currency: just to keep the same term of exchange.

Increasing the supply of coffee to accommodate an increase in demand isn't forcing people to drink more: it is just about keeping the term of exchange

Increasing the public deficit and trade deficit to accommodate the demand for currency isn't forcing currency into the system. It is just about maintaining the same term of exchange. There isn't the need to build up productive capacity to justify it. From monopoly of coffee to monopoly of currency

- Demand for net currency saving must be accommodated = government deficit must be elastic
- Net foreign saving desire must be accommodated = trade deficit must be allowed to fluctuate
- Currency term of exchange and foreign exchange rate are not a function of the size of Public deficit and trade deficit.

So, what's the role of the private sector in determining market prices when the monopolist is fixing the currency's term of exchange?

The answer is that the private sector is the source of relative value between goods but isn't the source of the unit of measurement used to measure value. Currency is both an immaterial commodity, so it is priced by its monopolist, but it is at the same time the unit of measurement of the value of all remaining commodity goods and services





Long jump

- The competitor actions determine the relative value between jumps.
- The meter is the unit of measurement
- The extension of the meter isn't a function of what competitors do
- If the average jump at the Olympics increases that doesn't affect what it is needed to jump to reach one meter

The same is with the term of exchange of the currency: level of prices increase isn't the same as a change of the currency's terms of exchange

Coffee's price isn't changing in function of who is buying it Meter doesn't change in function of who is jumping Term of exchange isn't changing in function of who is buying the currency

- Term of exchange of the currency isn't a function of the composition of the public spending
- Term of exchange of the currency isn't a function of economic productive capacity.
- The rate of increase of the term of exchange (monetary inflation) isn't a function public spending composition
- Exchange rate isn't a function of the composition of the public spending
- Terms of exchange of the currency and exchange rate isn't structurally about demand and supply: because currency is a monopoly (time to be rigorous baby ;))



Long jump

• The competitor actions determine the relative value between jumps.

In Canada and in the USA Relative values between items are expected to be pretty consistent





1 FLASH DRIVE= 2 BATTERY PACK





1 FLASH DRIVE= 2 BATTERY PACK

Nominal expression of the prices in different countries can be very different

By setting what the private sector needs to provide or do to get new supply of currency the state sets the terms of exchange of the currency Ratio between terms of exchange of two currency sets the structural exchange rate upon which various pressures can be applied.

- Currency is not "priced" by who prices goods
- Term of exchange of the currency isn't endogenous
- Foreign exchange rate isn't endogenous (structurally)

So, to summarize, market power is about relative value, and the currency's terms of exchange are what is used to express those relative values.

Let's now take a different angle

DEFICIT SPENDING = THE STATE SUPPLY OF NEW CURRENCY REMAINING IN THE PRIVATE SECTOR

 TRADE DEFICIT = LOCAL COUNTRY'S SUPPLY OF NEW LOCAL CURRENCY **REMAINING IN THE FOREIGN SECTOR (IN EXCESS COMPARE TO FOREIGN** CURRENCY REMAINING IN THE DOMESTIC **PRIVATE SECTOR**)

Countries do not just "export" goods: they also "export" domestic currency (crediting domestic accounts held by foreigners).

- Export from Australia to New Zealand
- Both Country perfectly balanced trade balance wheat and iron are competitive market
- Australia's Export to New Zealand:
 - 60% wheat + 40% iron
- New Zealand Export to Australia:
 - 40% wheat + 60% iron
- But the overall values are equivalent
- - New Zealand is in deficit in terms of wheat New Zealand is in Surplus in terms of iron
- Australia is in Deficit in term of iron Australia is in Surplus in term of wheat

Does the different composition of export and import relevant for the exchange rate level?NO

- If you put once country's local currency at the place of the iron:

Australia is in deficit and New Zealand in Surplus.

Does the different composition of export and import relevant for the exchange rate level? NO

Let's take another Angle again....

This time it will be harder

Imagine the world been constituted by 2 countries, a country called "Foreign" and a country called "Local". Imagine that in year 2024 the private sector of Local has a desire to save currency from Foreign.

 In order to do so they have to sell something to Foreign and get the Foreign currency. So they sell goods to them and do not use the Foreign currency to get any goods produced in Foreign. • In this scenario, Foreign is running a trade deficit: importing goods without exporting anything.

- Is Foreign in trouble? no.
- Is Foreign in debt? Neither.
- In a sense it could be said that Foreign paid for its import "exporting its currency".

It may not be immediately obvious, that in order for a saving desire to occur in the currency of the other country, there is no need for those who first earn the currency, to save it: a private agent of Local can earn the Foreign currency and then re-spend it in favor of another Local private agent that will save it.

In 2025 the situation remains the same as in 2024, but a financial sector appears allowing trading directly between the two currencies. • What changes is that now someone who wants to get the currency of the other country can directly sell his own domestic currency in exchange for it and therefore the saving can be done by someone who supply currency instead of goods.

- As a matter of fact, the central bank of Local can sell domestic currency and buy Foreign currency, and save it, inducing a negative foreign net saving desire and producing, in so doing, a trade surplus.
- It can do it also by discounting the local currency: that has been the case of China

- Deficit spending=the private sector earned more money than the one needed to pay taxes
- Trade deficit=foreign sector received more payment than what it has made to the domestic economy (no new private debt needed)

IS TRADE DEFICIT SYNONYMOUS WITH DEBT?

NO

Financial dependence is the situation in which the State does not have a monopoly on its currency in a floating exchange rate regime.

Economic dependence, has been defined (Wallerstein 1991) as the need to import goods and services necessary for the development and maintenance of the national economic structure; this is aggravated when in conjunction with being subject to a certain degree of monopoly power on those imports.

Economic dependence therefore influences the nature of the goods to be produced; it does not, in any way, influence the quantity of labor force that can be activated. It therefore says nothing about the level of unemployment.

Economic dependency is a qualitative matter. Trade balance is purely about quantitative defining an industrial policy while keeping in mind the risk of affecting employment leads inexorably to uncourageous choices at best. having greater financial capacity, and the certainty of maintaining full employment, whatever the degree of economic dependence, enables the state to control absolute poverty. It simultaneously opens up greater space in which to define and develop industrial policy.

- The terms of exchange of the currency and the foreign exchange rate are not a function of the public deficit/trade deficit
- Currency's Term of exchange isn't endogenous
- Foreign Exchange rate isn't endogenous (structurally)
- Trade deficit is not synonymous with foreign debt
- Trade deficit isn't synonymous with economic dependency
- MMT defines what is the policy space in term of public spending: MMT can help defining what are the actual possible industrial policy options

New Zealand Dollar	1.00 NZD ▲ ▼	inv. 1.00 NZD 🛦 🔻
Argentine Peso	203.916292	0.004904
Australian Dollar	0.923419	1.082932
Bahraini Dinar	0.219246	4.561087
Botswana Pula	8.006591	0.124897
Brazilian Real	2.940659	0.340060
British Pound	0.479637	2.084910
Bruneian Dollar	0.800424	1.249338
Bulgarian Lev	1.076306	0.929104
Canadian Dollar	0.800178	1.249723
Chilean Peso	550.766210	0.001816
Chinese Yuan Renminbi	4.248898	0.235355
Colombian Peso	2472.261256	0.000404
Czech Koruna	13.545867	0.073823
Danish Krone	4.107520	0.243456
Emirati Dirham	2.141439	0.466976
Euro	0.550307	1.817169
Hong Kong Dollar	4.562299	0.219188
Hungarian Forint	210.220864	0.004757
Icelandic Krona	80.878575	0.012364
Indian Rupee	48.501987	0.020618
Indonesian Rupiah	9251.786436	0.000108
Iranian Rial	24522.635149	0.000041
Israeli Shekel	2.366364	0.422589
Japanese Yen	87.382719	0.011444
Kazakhstani Tenge	278.979858	0.003584
Kuwaiti Dinar	0.180754	5.532372
Libyan Dinar	2.853951	0.350391
Malaysian Ringgit	2.779542	0.359771

Alphabetical order Icelandic Krona ▲	1.00 ISK▲ ▼	Oct 21, 2023 13:24 UTC inv. 1.00 ISK ▲ ▼
Argentine Peso	2.521265	0.396626
Australian Dollar	0.011421	87.556376
Bahraini Dinar	0.002711	368.894182
Botswana Pula	0.098995	10.101499
Brazilian Real	0.036359	27.503558
British Pound	0.005931	168.592222
Bruneian Dollar	0.009899	101.024883
Bulgarian Lev	0.013306	75.154090
Canadian Dollar	0.009892	101.089990
Chilean Peso	6.809791	0.146847
Chinese Yuan Renminbi	0.052578	19.019387
Colombian Peso	30.567567	0.032714
Czech Koruna	0.167531	5.969062
Danish Krone	0.050796	19.686727
Emirati Dirham	0.026477	37.768336
Euro	0.006803	146.988623
Hong Kong Dollar	0.056409	17.727570
Hungarian Forint	2.600270	0.384575
Indian Rupee	0.599843	1.667102
Indonesian Rupiah	114.391067	0.008742
Iranian Rial	303.203107	0.003298
Israeli Shekel	0.029260	34.175795
Japanese Yen	1.080402	0.925581
Kazakhstani Tenge	3.449367	0.289908
Kuwaiti Dinar	0.002235	447.450393
Libyan Dinar	0.035287	28.339163
Malaysian Ringgit	0.034367	29.097805
Mauritian Rupee	0.319443	3,130447

1. Canada :

Period from 1971 to 2021 Frequency : Annual Source : World Bank



2. Australia

Period from 1984 to 2021 Frequency : Annual Source : World Bank



3. Norway

Period : from 1993 to 2021 Frequency : Annual Source : World Bank



4. New Zealand

Period : from 1985 to 2021 Frequency : Annual Source : World Bank



5. Iceland

Period : from 1990 to 2021 Frequency : Annual Source : World Bank



6. India

Period : from 1993 to 2021 Frequency : Annual Source : World Bank



7. USA

Period : from 2000 to 2023 Frequency : Monthly Source : FRED database - Federal Reserve Bank of St-Louis



Created by @robert_cauneau - Source : FRED database - Federal Reserve Bank of St-Louis

8. Euro Area

Period : from 2000 to 2021 Frequency : Annual Source : FRED database - Federal Reserve Bank of St-Louis

Regression for the period : from Jan 2000 to Jan 2021 0.2 Exchange rate (Percent change from year ago) 0.1 0.0 R-sguare: 0.06 -0.1Coefficient: 0.0013 Standard error: 0.00 t_statistic: 1.17 Frequency : Annual Probability: 0.25 -0.2-20 -80 -60 -40 0 Balance of trade (Percent change from year ago)

Created by @robert_cauneau - Source : FRED database - Federal Reserve Bank of St-Louis

Euro area - Balance of trade vs Exchange rate

FOREIGN NET SAVING DESIRE

When it comes to Currency, the "market", meaning the private sector, it doesn't just have a demand for income (demand for the commodity); in fact it has also a demand for <u>unspent</u> income: in other terms a "saving desire". Foreign net savings desire = difference between:

(i) demand by non-residents for unspent income (savings) in domestic currency as well as financial and real assets denominated in domestic currency (composed of private demand and foreign state demand).
(ii) demand for unspent income (savings)in foreign currency by residents (composed of private demand and state demand, as well as financial and real assets denominated in foreign currency).

It is positive when (i) > (ii), and negative otherwise.