Why and how to start a national parallel electronic currency in Italy – and why it would work – fast

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Note: this paper is an updated and somewhat abbreviated version of one in the Real World Economic Review, a year back. It was written when Matteo Salvini's EU/euro criticism was still widely covered and created hope for many EU- and euro opponents in Italy and elsewhere. Much momentum has since been lost, but hopefully the new Italexit *initiative can succeed.*

In this paper *Modern Monetary Theory* is a foundation. A central tenet of MMT is that a country absolutely needs to issue its own currency to have the necessary tools for macroeconomic control, full use of productive facilities and full employment.

But what can be done when the currency in circulation is issued by an institution above and outside the country? Examples are dollarized countries like Ecuador and El Salvador, and the eurozone countries. One of the hardest hit countries by the by now ten-year-old debt-induced EU crisis is Greece. In several papers I and some colleagues have since 2010 argued for the introduction of an electronic parallel (also called "complementary") national currency there. Three papers are (Andresen, 2012, 2018) and (Andresen and Parenteau, 2015).

The Greeks have however, ignored this idea, even if it briefly gained attention in the summer of 2015 when former minister of finance Yanis Varoufakis resigned after a late and futile exploration of such an option.

This type of idea could be implemented in any similarly crisis-hit country, Italy among them.

The EU & euro is not popular, but what is the alternative?

Politically, both the EU elite and the elites in the crisis countries are strong supporters of the euro. There is also – even in the hardest hit countries – a majority in the general populace for sticking with the euro – mostly based on fear of what will happen if one reverts to a national currency. The mainstream advice for the last 12 years has been to be to just keep going with the euro and hope for an internal devaluation of wages and prices to enhance the crisis country's competitiveness so much that future net exports will enable it to service its debts – a painful and slow process for the population. But after all these years with chronic crisis, this economic theorizing has demonstrated that it does not work in the real world.

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The parallel currency proposal

A fast-working solution (while the final solution is to leave the euro) is to furnish both households and firms with an additional domestic countrywide means of exchange – circulating in parallel with the euro – so that the large amount of unemployed may get jobs, and firms' spare capacity may be utilised. A euro-debt crisis country has a large output gap, and such a gap could be much diminished without giving rise to significant inflation effects. Utilisation (and very fast activation) of this idle capacity (including unemployed workers) may be achieved by nationally issued "electronic (or 'digital') parallel money". We will use the abbreviation "EPM" from now on. A unit of this currency will also be called "EPM".

I will argue below that this will quickly reduce unemployment and enable people and firms to exchange goods and services. It will also increase confidence and reduce pessimism, put a brake on the downward spiral, and probably also enhance the circulation and net national acquisition of euros.

How does it work?

Transactions are done via mobile phone (also to a lesser degree via computer and an EPM debit card), and automatically received and accounted for on servers with ample capacity at the country's treasury (not central bank – more on this later). We assume a bank-like facility under the treasury, from now on termed the "Treasury Bank". Such a mobile phone-based banking system may be implemented through one of the technically proven schemes already in successful operation in some developing countries (Hughes and Lonie, 2007), (Tagpay, 2018). There is no physical/paper EPM in circulation. The government (including local governments) have EPM accounts at the TB. These accounts are debited whenever the government pays wages or pensions or buys goods and services. All citizens and domestic firms have cost-free accounts there too, also interested foreign entities (but we will expect EPM's to circulate only domestically in a first phase). The EPM's are created ex nihilo, "printed" by the TB.

The government pays employees, pensioners and suppliers both in EPM's and euros. The EPM/euro mix may be adjusted based on how the process develops. Taxes are also collected in a similar mix of the two currencies, *and such that each taxpayer (business or individual) has to pay in the same proscribed mix*. The government-issued EPM will have some intrinsic value since it may be used by the public to settle tax obligations (as argued by MMT). One EPM corresponds to one euro when paying tax.

Employees and firms offering goods and services will gradually – as the scheme gets more popular – decide to accept a certain share of EPM's as payment, while the rest must still be in euros (more on the initial dynamics below). While the government pays wages and taxes in a government-decided mix of the two currencies, the mix in private sector transactions is decided freely by the involved parties and will differ between trades. The government mix will necessarily have to be gradually and adjusted with time and circumstances. Employers and employees may locally negotiate the share of wages being paid in EPM's, based on how things develop.

There is an additional positive effect of introducing EPM's: By enabling activation of idle labour and production capacity, exports increase. Thus, even if this extra activity is mediated (partly) with EPM's, this enhances the ability of the country to service its debt burden in euros. Also, circulating EPM's will enhance output for *domestic* consumption and investment. To some degree this will lead to import substitution, improving the balance of trade which is a good thing concerning the ability to service euro debt.

Another positive effect is political-psychological: general pessimism is reduced and confidence increases. This will decrease the liquidity preference of individuals and firms that possess euros but have been holding back in their spending. For a given amount of euro *stock* held by agents, the aggregate euro *flow* will increase, i.e. we get increased euro money velocity – we will get somewhat larger euro flows in addition to the new EPM flows.

The dynamics of the EPM initial phase

A basic albeit small initial confidence should be present because the public are informed that EPM may be used to pay (a share of) taxes. But the initial confidence in EPM will be very low, because of widespread popular distrust in politicians and authorities that over many years haven't been able to ameliorate the effects of the crisis, and because of hostile coverage in the financial press and alarms raised by domestic and foreign “experts”, and from EU/ECB circles.

To discuss the probable initial dynamics of an EPM, it might be useful to define two entities, *"trust"* and *"need"* (Andresen, 2018, Ch. 7). Even if trust is very low at the outset, need is very high due to mass unemployment and too low incomes for many employees and pensioners. In this situation people have the choice of trying out an EPM for purchases or let it accrue in their accounts. Let us discuss start-up developments using some assumed figures: For every 100 euros received by pensioners and public employees, they now receive an additional 10 EPM. Note that at the outset, the *same* number of euros are paid to recipients. Initially EPM will mostly accumulate in their accounts. But it cannot be used to pay taxes until taxes are due, so the only alternative to letting the EPM account grow, is to spend it.

This gives an increasing incentive for EPM recipients to pressure vendors to accept EPM in payments. And in a depressed economy, a shop which may be economically on the brink may choose to accept – say – 8 euros and 4 EPM instead of the 10 euros originally demanded for an item. This means that the probable initial refusals of EPM in payments will start to wane – some use of EPM should be expected because of the alternative of no sale is considered even worse seen from the vendor’s position.

So, *need* will ensure some initial EPM circulation, even if *trust* is low. With time however, a positive feedback process will start working: individuals and firms observe that transactions with EPM's are increasingly occurring, this will increase trust, leading to more use and acceptance of EPM. This will also – as a result of firms accepting EPM in payment – in the next round influence wages in the private sector: Firms will ask their employees to accept a share of EPM in their wages. And employees will then often get a choice between accepting this, or unemployment. So they accept such a mix. This again leads to firms becoming more willing to accept a share of EPM in payment.

The government (central, regional, local) has another channel to inject EPM in the economy in addition to payments to public employees and pensioners: It may award contracts and buy from the suppliers that are most willing to accept a reasonable euro/EPM mix. If one doesn’t accept – say – a 90/10 euro/EPM mix, the contract or purchase goes to a more willing supplier. And this of course leads to successful suppliers pressuring their employees to accept a similar mix in their wages, again increasing use – and confidence.

With time and increased trust and transaction activity in EPM, the government’s spending mix for wages, pensions and purchases may perhaps be adjusted slightly downwards on the euro side, but compensated by a larger increase in the EPM share. This frees up a euro flow that for instance may be used towards a reasonable euro share for social spending. Such spending will also decrease as unemployment falls.

Euro/EPM exchange rates

Assume that the government declares at the outset that the exchange rate EPM to euro ought to be unity, and that firms are asked not to set prices in EPM's high, but instead safeguard themselves in the start-up phase by setting the initial EPM *share* of an item's price low. What the government recommends will of course not necessarily be followed by firms. But we should expect that firms (and individuals) that offer products or services where the dominant input factors are domestic, will be most willing to try a significant share of EPM's in what they accept as payment.

At the other end we have products that are imported, and the domestic input factors are subordinate: for Italy and Greece smartphones and petrol are examples. Here one can expect that only with time will such sellers start accepting EPM, and the share will never become high. But there will be a mechanism at work in the right direction also there: when EPM use has reached a reasonable and still growing level for other consumer items, for instance food (where domestic input factors are significant), import-based firms can negotiate a wage share being paid in EPM's and the rest in euros, hence allowing also such firms to accept a share of EPM's in the items they sell.

Regardless of possible government declarations about how the parallel currency ought to be valued, one should expect the EPM to never reach parity with the euro (after starting very low due to initial very low confidence). Floating the EPM versus the euro must be accepted; there is no point in trying to uphold an artificially favourable exchange rate and by this creating a black market. But the EPM will end up anchored not too far below the euro because one can pay a share of taxes with them – one EPM counting as one euro. Note also that EPM – as opposed to credit money issued by banks when lending – resembles high-powered (central bank) money in one important and good sense: it cannot be lost, since it is issued by the treasury. This adds to confidence.

"Devil's advocate" arguments against the EPM proposal

The first is: *"Won't all injected EPM be used immediately to pay taxes?"*

– Well, for any taxpayer (individual or firm) taxes will not be paid before they are due. And as long as the flow injected by government spending arrives earlier than the demanded similar size taxation flow back to the government, a supply of EPM will remain in the economy for some time. This EPM supply will either be used for payments, or holders with sit on them. Holders will then try to get them accepted for payments, as already argued. The time delay between injection and taxation may be made arbitrarily large by the government. And the EPM supply available for circulation is proportional to this time interval. It should probably be extra large at the outset, to "prime the pump" and increase spending incentives.

"Isn't EPM EU illegal?":

1. The ECB euro monopoly outlaws the printing of other bills.
   – But the EPM does not exist as physical currency – paper or coins, and will not be illegal for that reason (Pott, 2012).

2. *Only the euro may be declared "legal tender".*
   – But there is no need to declare EPM legal tender; any potential recipient of EPM can refuse to accept them in payment – as opposed to euros. As discussed above, EPM will be accepted sooner or later anyway, in increasing amounts due to economic need and spread of trust through contagion processes (ibid.)

3. *Issued EPM should be considered debt, and won't issuance therefore count as public debt increase under Maastricht rules?*
   – The EU definition of public debt encompasses an obligation of the debtor to pay back the amount owed in the future, in euros. But the government is not obliged to pay back circulating EPM (or *TCCs*, or *mini-bots* – see below). EPMs are simply extinguished when they are used to pay taxes, they are never redeemed in euros. By this, the circulating EPM supply is not debt in the sense of the Maastricht rules (Bossone et al, 2018). See also (Kaminska, 2019).
   One may of course object that EU and ECB circles will *insist* that EPM is illegal anyway, which some has already started doing (Kaminska, 2019). But immediate economic repercussions will not be probable, since the EPM-issuing government in that case will demand a legal process to consider the issue, and the EU/ECB can hardly refuse this. The crucial point is that a parallel electronic currency solution is something a national government can implement fast and unilaterally; there is no need for acceptance or support from supranational organs. So, while the EU/ECB objects, the EPM is launched and circulation (and popularity) grows.

One might also object that introducing an EPM does not solve the euro debt problem. To this I reply that without a parallel medium of exchange (today's situation) an economy is wholly dependent on euros to uphold domestic activity. This puts the country in a very weak position when negotiating forgiveness and/or lower interest rates and longer repayment times on existing debt. The existence of an EPM circuit changes the balance of power strongly in favour of the indebted country.

But what about richer agents moving their euros out of the country to avoid taxes or in fear of losses due to collapse of domestic banks? Yes, the problem of euro capital flight is not solved by introducing EPM, except that increased domestic economic confidence may after a while motivate many agents to repatriate their euros. Anyway, the issue of capital flight is there regardless of whether the EPM proposal is implemented or not, and must be addressed somehow. And it has more serious effects without an EPM system in operation.

Two other parallel currency proposals

In Italy, the *Fiscal Currency Group* has been working for several years to get politicians to understand the need for a parallel currency. They call the instrument *tax credit certificates (TCCs)* or "fiscal money" (Bossone et al., 2018). These are non-debt bonds in the sense that they only commit the government to reduce the future tax burden of their bearers by an amount equivalent to the nominal value of the bonds, two years after they have been issued. The purpose of the TCCs is the same as EPM, and embodies an MMT understanding of economics. The two-year duration is to force the bonds to circulate as a means of exchange, which is good. But this has the drawback that TCC units have different times to maturity. As a specific TCC approaches maturity, its value will increase. A need to estimate a market price for each TCC complicates the use of TCC as a means of exchange.

With the EPM the government-controlled delay between spending and taxation solves the forcing-to-circulate problem. EPM units do not mature, are therefore not unique and all have the same value. Furthermore, they may additionally be transacted in arbitrary amounts down to an "EPM cent", just as with euros. This opposed to a less convenient non-divisible bond instrument.

Perhaps the most well-known Italian proposal is Salvini/Lega's "mini-bots". These are also bonds, but with a weaker impact than the TCC and EPM, since they are only supposed to be issued by the government to pay arrears to creditors. But this instrument would also help since it may be used as a means of exchange. It may also be used to pay taxes and thus also fits well with an MMT understanding.

"But is this not just a trick to (catastrophically) leave the euro?"

As mentioned above, the proposed scheme will give euro-indebted countries a much better position in their bargaining for partial debt relief or less heavy euro debt service burdens. The change in the balance of power resulting from such a system can be detected in alarmed reactions from pundits in the financial markets and the financial press against Salvini's proposal. (Giugliani, 2019) and (Horowitz, 2019) are representative for this, even if Giugliani consoles the readers that the minibot won't happen. The claim is that a parallel currency is just a trick for leaving the euro, the writers knowing that in countries like Italy and Greece the majority does not dare this. The bond markets are of course scared to be side-lined (which they will actually be to a large degree with a parallel currency). So they and their supporting pundits contribute to the alarmism.

Yes, a parallel currency enables a full transition (back) to a national currency. At the same time, one may calm the many who fear leaving the euro, that euros can circulate in parallel with EPM as long as needed, and that euro deposits and euro-denominated assets of course are upheld.

Running a parallel currency circuit gives the national assembly in a crisis country the freedom to deliberate and make a transition back to a national currency at any future time, and base it on experience with how the parallel currency and the economy have fared. The gradual way EPM may be injected into an economy while euros remain in circulation, should enable a sober and panic-free public discussion of whether to introduce a national parallel currency.

A date for starting the gradual injection of EPM may be set and publicised in ample time, without creating much speculative or psychological turbulence. As opposed to today's alarmism about scenarios of reverting wholly and abruptly to a national currency – an alarmism which is very much stimulated by pundits and financial interests that wish to avoid such an outcome.

Compare the above described careful and gradual process to the much discussed alternative and feared scenario with overnight abandoning of the euro – which will lead to panic and speculation beforehand, and an intense media hunt for the transition date – a date that should be kept secret but which will mercilessly be revealed. Such an abrupt break with the euro is considered – also among most of the EU-critical public – unrealistic and harmful, even if such fear is largely ungrounded.

More on the advantages of electronic (digital) money

There are great possibilities for better control of macroeconomies with electronic money, not only in the parallel application, but in general. The problem is not whether it would work – this has been demonstrated in many countries for years (Hughes and Lonie, 2007). The problem is to get public information and discussion, and – most important – implementations in euro crisis countries. Doing this – for instance in Italy or Greece – is neither very expensive nor risky. *Such a system could be bought off the shelf and be up and running in a few months, at very low cost* (Tagpay, 2018).

Some may object that a government in a euro crisis country does not need to issue its own parallel electronic currency. One could instead use one or several of a spectrum of "cryptocurrencies", the most well-established being bitcoin. But cryptocurrencies have two fundamental flaws:

1. They are not nationally issued, and a government can't create and inject more of them as needed into a national economy. Crypto is comparable to using gold and precious stones as an additional means of exchange and will not make a difference. If cryptocurrencies really could make a difference in a depressed economy, they should by now – after 10 years' crisis – circulate comprehensively. This is not the case.

2. Cryptocurrencies are tailored to avoid government control and taxation. Accounts and transactions are anonymous and therefore taxation is impossible or very difficult.

An appeal to the MMT community

The Modern Money Theory community – which this author considers himself to belong to – is finally making some headway, both politically and in academia. They have achieved increasing acceptance of these main points:

- A country needs to issue its own currency.
- Taxes are not needed for a government's spending. A government also doesn't need to borrow to spend.
- A government issuing its own currency can always ensure employment of the entire population.

But the MMT community has until now not given much attention to what euro countries could do to get out of the crisis, except the advice: "revert to a national currency, overnight". But this is politically impossible. So they should promote the parallel currency proposals.

Additionally, they have hardly shown any interest in *electronic* (digital) money, and the strong advantages of such currencies. This should be remedied.

Furthermore, there are two positive but unrecognised side effects of issuing electronic money by a "Treasury Bank" ("TB") that the MMT community ought to appreciate:

1. The national central bank – which is bound up in the EU/ECB regulatory framework and mostly populated by personnel and upper management identifying with mainstream financial narratives – is side-lined.
   But it will still control the euro part of the monetary system – business as usual – thus keeping its much-lauded (and by law imposed) "independence". This ought to somewhat weaken the probable central bank resistance to a parallel currency scheme.

2. By doing the parallel currency directly under the treasury, one also shows the validity of MMT in practice. The government directly issues the money needed for spending, and drains (destroys) the necessary money through taxation. A "Treasury Bank" is a thus a *demonstration project* for the principles and advantages of MMT, and a laboratory for gaining experience with MMT-based fiscal regulation.

As a final argument, there is a general worldwide growth in digital currencies, phasing out the use of bills and coins. It is now so strong that even (traditionally careful and conservative) central bankers are expressing interest in introducing direct digital money accounts at their central banks (Nicolaysen, 2017). Technologically driven processes – a few other examples are the emergence of the Internet, digital audio and photo – are unstoppable. This makes it easier also for parallel digital currencies.

Conclusion

A parallel electronic currency will – with immediate effects (months) – ameliorate the strongly and persistently lowered living standards for most people in crisis countries, which is the bleak and only future (lasting several additional years) that the EU and euro crisis country governments have been able to come up with. By the proposed scheme it should be possible to activate the immense underused potential that the hard-hit eurozone countries have: unemployed or underemployed people, to give many a better life and the country a return to social stability.

The challenge for the economics community including MMT proponents – and the politicians that look to them for advice – is to leave behind the all too common unwillingness to think outside the box. As Keynes (1936, Ch. 12), said:

"Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally."

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