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The Eurozone – Fundamental and Cyclical Issues to be Overcome

By John Greenwood

Introduction and Overview

- The Eurozone, and especially its monetary system under the ECB, faces three **fundamental issues** that urgently need correction.
  1. From the outset in 1999 the ECB chose a wrong money growth rate, abandoned it in 2005, and since then has moved on to a method of monetary management based on interest rates which is wholly unsound.
  2. The ECB, like the Bank of Japan, has conducted its QE operations in the wrong way and as a result it failed to restore economic growth and return to target inflation in a timely manner.
  3. The ECB is in the process of gradually extending its mandate from inflation control to other social goals, using the rationale of financial stability.
- The **cyclical issues** confronting the Euro area are grabbing the headlines, but they are of a secondary importance relative to the fundamental issues listed above.
  1. **Inflation** is a direct result of excess M3 growth during the pandemic, triggered in large part by the ECB's TLTRO loans to banks and much less by the QE or PEPP operations of the ECB.
  2. The high prices of gas, oil, food, and other commodities associated with the war in Ukraine, sanctions on Russia, and the Russian countermeasures are **relative price** issues, not problems of the overall price level.
  3. The levels of government and private sector **debt** are serious and will exacerbate the coming recession, but they are essentially cyclical and could be gradually resolved by stable monetary growth combined with sensible fiscal policies.
  4. The weakness of the **euro currency** is largely a result of interest rate differentials with the USD and perceptions of monetary policy. Its value is likely to reverse abruptly when markets perceive the Fed to start easing.

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Three Fundamental Issues

(1) Money Growth Rate

When the Eurozone was created in the late 1990s it was envisaged that it would operate like the independent Bundesbank, Germany's central bank, which until then had enjoyed a good reputation for maintaining price stability and thereby ensuring that the value of the currency – both internal and external – did not depreciate significantly in real terms.

The focus for the ECB's operating procedures in the early years was the emphasis placed on the "two pillars" inherited from the Bundesbank. These two elements consisted of a serious examination of the economic backdrop – where the economy was in the business cycle, how much monetary stimulus was required etc – and a careful review of monetary growth built around a 4.5% "reference rate" for M3. If this was exceeded on a sustained basis it was thought that there could be serious inflationary consequences. If it was undershot, there could similarly be risks of deflation.

In the early years the actual M3 growth rate overshot the 4.5% reference rate, averaging 6.7% between January 1999 and December 2003, but HICP inflation remained subdued at 2.6% year-on-year in December 2000, 2.1% in December 2001, and 2.3% in December 2002. An early review of ECB strategy, led by ECB Chief Economist and ECB Executive Board Member (1998 to 2006) Otmar Issing, and carried out in 2003 – including a review of the 4.5% reference rate – came to an unfortunate conclusion, downgrading the role of money (M3) in ECB analysis and decision-making.

My own analysis is that the chosen reference rate of 4.5% for M3 was too low. Given the overshoot of the M3 reference rate, combined with the low inflation, it was not surprising that the M3 targets were downgraded in importance. The 4.5% might have been suitable for Germany, the most advanced economy in the euro area, but for the newly created monetary union it was – in my view – not suitable. To calculate the appropriate money growth rates for each economy I have used the Cambridge version of the equation of exchange (MV=Py), taking logs of both sides of the equation and differentiating with respect to time, which enables the data to be expressed in rate of change form.

The data in Figure 1, where all the variables are shown as average rates of change over one year, strongly suggest that, for the four largest economies of the monetary union, the appropriate money growth rate – given the common 2% HICP inflation target, the different real GDP growth rates, and the annual change in desired money balances – would have been significantly higher than 4.5%. On a simple average basis, a better rate would have been 5.2%, although this ignores the fact that Italy had been a relatively high inflation economy and therefore Italian velocity did not exhibit the normal downward trend shown in other economies. Omitting Italy, the appropriate reference rate for M3 would have been 6.0%.

Figure 1. Appropriate growth rate for Eurozone M3 based on pre-1999 data

	Data Range	P	y	V	Appropriate M3 (=P+y-V)
West Germany	1970-1998	2	2.9	(-1.8)	6.7% p.a.
France	1971-2000	2	2.7	(-0.9)	5.6% p.a.
Italy	1971-1998	2	2.5	(+1.7)	2.8% p.a.
Spain	1971-2000	2	2.7	(-0.9)	5.6% p.a.
Average		**2**	**2.7**	**(-0.5)**	**5.2% p.a.**

After joining the euro area, increased Italian demand for stable euros (instead of depreciating lire) would have led to relatively higher money balances (a greater decline in velocity), which in turn would imply an even higher M3 "reference rate" for the entire monetary area.

If we now consider what happened subsequent to the launch of the monetary union, the results in Figure 2 again suggest that a higher reference rate for M3 would have been appropriate, not only for the four largest economies but also for the euro-area as a whole, especially as smaller, higher growth but financially less developed economies joined the club.

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Figure 2. Appropriate growth rate for Eurozone M3 based on data after 1999

	Data Range	P	y	V	Appropriate M3 (=P+y-V)
Pan Germany	1999-2021	2	1.3	(-2.1)	5.4% p.a.
France	2000-2021	2	1.3	(-3.1)	6.4% p.a.
Italy	1999-2021	2	0.5	(-2.8)	5.3% p.a.
Spain	1999-2021	2	1.8	(-1.9)	5.7% p.a.
Eurozone	**1999-2021**	**2**	**1.3**	**(-2.6)**	**5.9% p.a.**

In all euro-area countries the real GDP growth rates slowed in the two decades after 1999, and in the Italian case quite strikingly from 2.5% p.a. to. to 0.5% p.a. However, more than offsetting the declines in real GDP growth, the demand to hold money

balances (the inverse of income velocity) increased substantially. This is the kind of result that perhaps should have been expected from creating a monetary union whose prime purpose was to keep inflation low and stable. On a simple average basis, the combination of lower real GDP growth but increased demand for money balances plus the 2% inflation target in these four leading economies translates into an appropriate rate of growth of M3 of 5.9% p.a. (Figure 2). It should be noted, however, that this ignores the probability that smaller, faster growing economies of the euro-area would almost certainly have raised this average even further in two ways -- not only through their higher growth rate, but also because lower income economies tend to see a faster rise in desired money balances relative to income (or a faster decline in velocity).

This naturally leads one to wonder, given that the M3 growth rate considerably exceeded the 4.5% reference rate in the early years -- averaging 6.7% p.a. for the five years 1999-2003 without generating inflation significantly above 2% – whether one of the reasons for downgrading the monetary pillar in the 2003 review was that it had been set at too low a rate which was already effectively obsolete by 2003.

Subsequently, after the GFC, Eurozone M3 money growth was consistently too low. For example, over the six years 2010-2015 M3 growth averaged only 2.1% p.a. (or 2.9% over the period 2010-2019), barely more than the inflation target, leaving no room for funding real GDP growth or the annual additions to money balances that have averaged 2.1% p.a. since 1999. This was the reason why the euro area dipped into deflation in 2015-16; it also exacerbated the euro area debt crisis of 2010-12.

To bring this debate up to date, after the 2003 Review, M3 data was regularly mentioned in the monthly presentations by the President of the ECB but only in a pro forma way. The Governing Council of the ECB, often led by the Chief Economist and staff economists, did not try to correct the two-pillar philosophy for the Eurozone economy, nor did they wholly embrace the prevalent New Keynesian orthodoxy. Their approach in the years preceding the second Monetary Strategy Review of 2020-21 remained pragmatic, paying lip-service to the original two pillars, but not actually adjusting policy to conform to the implicit recommendations of either monetarist or New Keynesian schools. The monthly press conferences of the President of the ECB following the meetings of the Governing Council almost invariably contained the following three sentences (or something very close to them):

1. "Let me now explain our assessment in greater detail, starting with the **economic analysis**…" [emphasis added].
2. "Turning to the **monetary analysis**, the annual growth rate of broad money (M3)…"
3. " To sum up, a cross-check of the outcome of the **economic analysis** with the signals coming from the **monetary analysis** confirmed…"

Since the announcement of the new monetary policy strategy on 8th July 2021 this formula for presenting Governing Council discussions and decisions has been abandoned. Instead, after some introductory remarks, the President's speech now contains the following sections: Economic Activity, Inflation, Risk Assessment, Financial and Monetary Conditions and a Conclusion. It is noteworthy that since

July 2021 the section on Financial and Monetary Conditions has included regular mention of financing conditions, market interest rates, and bank lending as well as bank balance sheets and profitability, but the narrative has been entirely qualitative, with no specific numbers being mentioned in this section. Reporting on M3 in the President's remarks has been dropped entirely.

In part due to the neglect of monetary aggregates and in part due to the emphasis on interest rates as the key instrument variable, during the Covid-19 pandemic M3 growth surged to peak at 11.7% year-on-year in January 2021 – clearly too high for price stability. The specific underlying drivers were: (1) QE purchases of securities called the PEPP (Pandemic Emergency Purchase Programme), and (2) the TLTRO (Targeted Long Term Refinancing Operations) i.e., direct lending to commercial banks in the euro area.

To sum up this section, M3 has unwisely been dropped from the ECB's list of priorities when considering its policy going forward. Excess M3 growth has been the key factor underlying the current surge of Eurozone inflation.

(2) The ECB's Brand of QE: the wrong counterparties

The second fundamental problem that needs addressing by the ECB is the way that it conducts its Quantitative Easing (QE) operations. As Mervyn King correctly said in a speech in November 2021, "Quantitative easing is an expansion of the money supply, although most central banks are reluctant to describe it as such…"[1] To my knowledge, none of the Executive Directors or central bank Governors of the ECB's Governing Council has ever referred to the desirability of controlling M3 growth in the euro area, and certainly not since the onset of the pandemic. On the contrary, whenever the ECB Governing Council members discuss QE or monetary policy it is almost always in terms of the impact of ECB operations on interest rates. Moreover, the vast majority of economists and commentators also discuss QE (or, for that matter, QT) in terms of interest rates or the shape of the yield curve. They also view the transmission mechanism solely in terms of interest rate effects (hence the ECB's TPI, or Transmission Protection Instrument). These are all serious errors.

The almost universal assumption is that there is only one brand of QE in place around the world. But the truth is very different. There are two brands, and they have sharply differing effects on the quantity of money in the economy.

The first brand of QE, as conducted by the Fed and the Bank of England, consists of asset purchases (mainly government securities, but in principle it could be any other kind of financial asset) **from non-banks**. The second brand of QE, as conducted by the Bank of Japan and the ECB, consists of asset purchases (again mainly government securities, but in principle it could be any other kind of financial asset) **from banks.**

[1] See Mervyn King, "Monetary policy in a world of radical uncertainty" (p. 7). The speech was published by the Institute of International Monetary Research at the University of Buckingham in January 2022.

As I have explained in numerous papers and articles since 2013 when the Bank of Japan embarked on so-called "QQE" (Quantitative and Qualitative Easing") there is a fundamental difference between these two forms of QE. In the first variety, the purchases of assets from non-banks puts new money (via a direct payment from the central bank) into the hands of non-bank entities such as insurance companies, pension funds, money managers or sovereign wealth funds. The money supply is increased.

As I have also explained in numerous papers and articles since 2013 and 2015 when first the BOJ and then the ECB finally embarked on QE, there is a fundamental flaw in the operations conducted by the BOJ and ECB. In their version of QE, the purchases of assets are from banks, so no new money is put into circulation. All that happens is that the commercial banks swap government securities for a credit at the central bank (increasing their reserves), but no new loans are created by commercial banks, and no new deposits of non-banks such as non-financial corporations or households are created. The money supply is not increased.

Another differentiating feature of the two brands of QE is that in the first the new money facilitates deleveraging, whereas in the second any new money – sourced from new bank loans – only comes with added leverage for the non-bank private sector.

If the money supply is to be increased in the BOJ/ECB model of QE, then banks must – in the aftermath of QE purchases by the central bank – make new loans, crediting the deposit accounts of the borrowers with new money. But given that QE will only likely be implemented when the economy is depressed, the demand for loans in these circumstances will be weak, and probably few new loans will be created. The result is that in both the case of the BOJ and in the case of the ECB, the balance sheet of the central bank has expanded by more than the amount of broad money (M2 in the case of Japan, M3 in the case of the ECB).

To summarise this section, the ECB has largely failed to create money with its QE purchases. There was money creation associated with LTROs and TLTROs, but by and large the QE operations were a case of wasted ammunition.

(3) The ECB is extending its mandate from inflation control to other social goals

At is foundation, the ECB was tasked with maintaining price stability, later defined to mean the HICP inflation should be "close to but below 2%." The institutional architecture supporting this objective created rules for the member states to observe to ensure fiscal sustainability – the 3% maximum budget deficit rule and the 60% government debt-to-GDP rule laid out in the Maastricht Treaty. These were supplemented by proposals for national policy reforms (e.g., affecting the labour market, banking, and the capital market). Finally, a system of national supervision of banks and other financial companies was gradually replaced by a system of Eurozone-wide supervision to ensure a degree of conformity amongst competing institutions.

However, in the immediate aftermath of the GFC, the region was plagued with sub-par growth and near-deflationary conditions followed by the euro-area debt crisis which required the introduction of a series of "non-standard policies" notably the Securities Market Program (SMP, May 2010-September 2012), long term refinancing operations (LTROs, 2011), Outright Monetary Transactions (OMT, 2012), and the APP (Asset Purchase Program, consisting of corporate, asset backed and public sector securities purchases from mid-2014). Finally, as if the early and middle years of the last decade were not problematic enough, the onset of the COVID-19 pandemic in 2020 has required the ECB to embrace a further series of non-standard measures including TLTROs (Targeted Long-Term Refinancing Operations) and the PEPP (Pandemic Emergency Purchase Program). All these have drastically changed the way the ECB operates, forcing the Governing Council to consider how it should best fulfil its mandate in a dramatically changed environment.

In addition to these tools for combating specific financial problems, the ECB has started to widen its own view of its mandate, engaging in other areas of policy such as climate change and the management of sovereign spreads across the region. In both these areas it has announced that it will make purchases (of "green" bonds) or introduce financial instruments (such as the TPI, or Transmission Protection Instrument) that will address these problems. The problems are usually framed as financial problems that fall within the financial stability responsibilities of the ECB. All these are above and beyond the simple price stability mandate and have naturally led to considerable debate or even legal challenges as to their legitimacy.

Four Cyclical Issues

(1) Inflation

During the pandemic the ECB conducted large scale asset purchases and substantial lending to euro-area banks. The size of the ECB balance sheet expanded by 5 trillion euros from 7.7 trillion euros in February 2020 to 12.7 trillion euros by March 2022 when the various emergency programmes were finally brought to an end. Purchases of euro-area securities under the PEPP amounted to almost 2 trillion while the lending to banks amounted to 2.6 trillion. Foreign assets also expanded modestly.

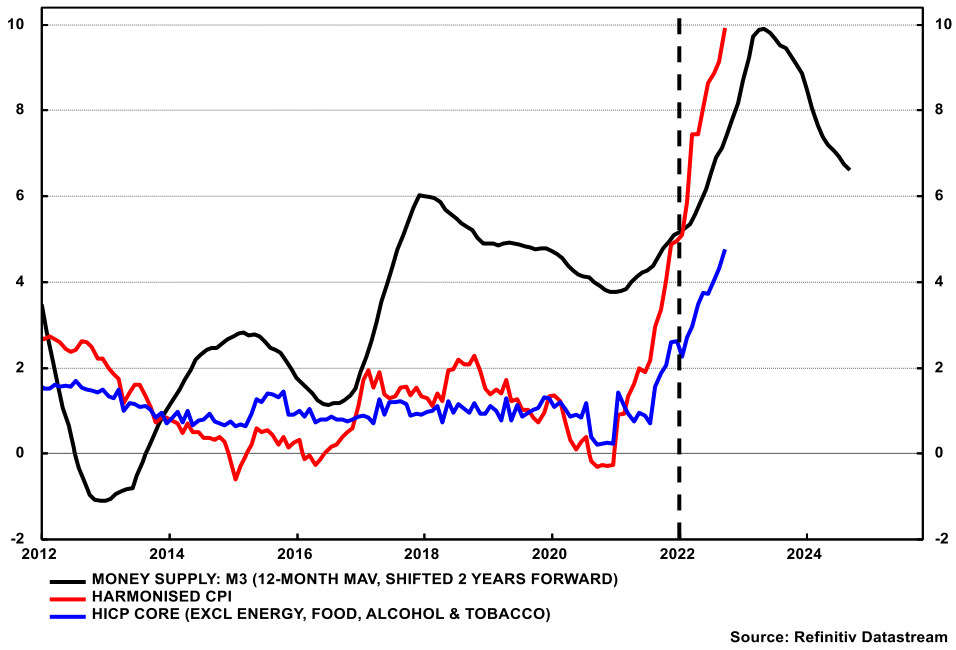
One striking fact about this huge expansion of the ECB's balance sheet – very similar in scale to the expansion of the Fed's balance sheet – was that it was accompanied by an expansion of M3 that was considerably smaller: only 2.9 trillion euros. This reflects the fact that – as discussed above in section 2 – the ECB's *modus operandi* for conducting QE was flawed: instead of generating an increase in broad money almost equal to the ECB's asset purchases, ECB purchases of securities did not guarantee a comparable expansion of M3. However, the TLTRO lending programme did produce an increase in lending and a parallel increase in deposits or money (M3).

As a result, M3 growth accelerated sharply through 2020, peaking at 11.7% in January 2021 – roughly double the appropriate rate for achieving the ECB's 2% inflation target. Since euro area output or real GDP could not grow any faster than

normal (typically between 1.5% and 2% p.a.), the excess money was bound to show up in inflation after a lag of about two years. As we approach yearend 2022, euro area inflation as measured by the HICP has hit 9.9% in September, almost five times the mandated target. Core inflation, which excludes energy, food, alcohol and tobacco, reached 4.75% in the same month.

The narrative from central bankers, politicians, and the consensus of economists is that the inflation is due to the war in Ukraine and Russian President Putin shutting off gas supplies to the euro area. This fiction is easily dispelled by observing that HICP inflation had already reached 5.2% in January 2022, before the invasion of Ukraine (see dashed line in Figure 3).

Figure 3. Eurozone inflation approaching its peak



As also shown in Figure 3, M3 growth has now peaked but its maximum impact on inflation will probably be during the upcoming winter months. In the chart, the year-on-year growth of M3 is averaged over 12 months and shifted forward by two years to take into account the typical two-year lag between money growth and inflation. Of course, such statistical exercises can never be exact, and there is always considerable "noise" in the monthly inflation data. Nevertheless, it appears highly plausible that, assuming M3 growth continues to remain around the 6% level (the growth of the unadjusted data over the three months to August), then inflation in the eurozone can be expected to start to fall in 2023 and continue falling in 2024.

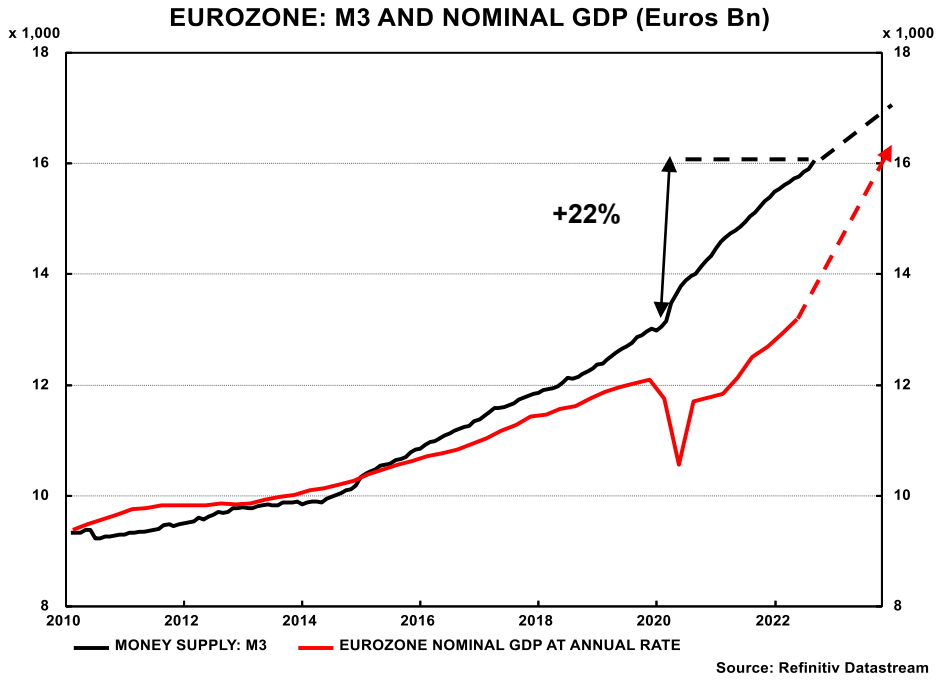
Based on M3 growth of 6% p.a. going forward and a nominal GDP projection of 7% for 2023, I expect real GDP to be zero or negative in 2023 and average inflation to be 7%. In 2024 I expect 4% nominal GDP growth split between 1% real GDP growth and 3% HICP inflation.

(2) Relative price shocks versus overall price changes

In any episode of inflation the timing of particular price changes can vary. In some episodes commodity prices move first while in others prices appear to be driven by shortages of specialist products due to supply chain problems (as with the shortages of semi-conductor chips and then cars at the start of the current episode of inflation), while in yet other episodes the inflation can appear to be driven by wage increases in a kind of cost-push spiral. All of these price changes are essentially **relative price** changes; that is, they do not imply a change in the **overall price** level.

If relative price changes persist (e.g., the price of oil rises and remains elevated for a year or more) but consumers wish to continue to purchase the same volume of oil as previously, then they will necessarily have less money to spend on other items, whose prices will ultimately decline as demand for them weakens. In other words, assuming no change in the quantity of money or no change in the income of consumers, some prices will be forced to decline in order to make space for the higher oil price within consumer budgets. In this way the **overall price level** remains unchanged even though individual, or **relative prices** change.

Figure 4. Eurozone Nominal GDP will close the gap with M3



What we are seeing in most commentaries today is a confusion between relative price changes and overall price changes. Given the 22% increase in euro area M3 since the start of the pandemic (see Figure 4) and assuming further money supply increases taking the total to 27% by the end of 2023, nominal GDP is set to rise by a similar 27% during the period to 2024 (one year later). Approximately 6% will be real GDP

growth and increases in money balances will amount to a similar 6%. This leaves a gap of approximately 15% to be filled by inflation of the overall price level.

We are almost certainly seeing goods prices – including energy prices – temporarily overshooting the 15% average overall price increase, but as these prices ultimately come down, service prices will rise to take up the difference. The key point is that excess M3 growth has created the inflation and by the end of the process overall price level will have risen by about 15% across the Eurozone.

(3) Debt levels across the Eurozone

Euro area debt is high by global standards, both in the government sector and in the corporate sector. With interest rates rising, the debt levels and the servicing of new debt – or rolled-over debt issued at higher interest rates – are sure to intensify the financial stresses during the recession for some sovereign and corporate debt issuers. Arguably the debt problems can be viewed as structural because they have built up over a period of decades and may take longer than a single cycle to reduce to tolerable levels. Nevertheless, the treatment of excessively high debt is best understood in the context of business cycle management.

A fundamental tenet of IMM is that the business cycle is driven by broad money growth. (For more on this, see my Business Cycle Basics, Parts 1-5, available on the www.eri-c.com website.) It follows that, in the medium term, fiscal expansions or contractions only affect the division of aggregate spending between the public and private sector. In other words, if the government increases expenditure as part of a "stimulus" programme, this will inevitably be at the expense of private sector consumption if it is financed by taxes on consumers or at the expense of private sector investment if it is financed by borrowing. In the first case the tax removes some private sector income, thus reducing consumption. In the second case, public sector borrowing crowds out private sector borrowing. So long as the spending is not financed by the printing of money through the banking system or through the central bank then overall expenditures will remain broadly unchanged and only the mix of private and public spending will change.

Taking the logic one step further, there is in fact no need to enforce any austerity programme to correct excess levels of national or government debt. It is only necessary to ensure that monetary policy – i.e., monetary growth – is maintained at the appropriate rate for stable nominal GDP growth, thus ensuring that incomes across the economy continue to grow at a normal pace. The only other requirement is that the size of the budget deficit as a percentage of GDP must be kept below the growth rate of the nominal GDP. In this way the size of the **Government-Debt-to-Nominal-GDP** ratio can gradually be reduced because, under these conditions, the size of the numerator will be growing more slowly than the size of the denominator.

It is often said that after the Second World War it was inflation that reduced the ratios of government debt-to-GDP in developed economies. However, this is not correct. By far the most important contributor was the sustained implementation of the kind of policy suggested above – i.e., keeping broad money under control (which

was achieved through low inflation in the US combined with a global fixed exchange rate regime) while exercising the kind of fiscal discipline needed to reduce gradually the debt-to-GDP ratio in leading economies.

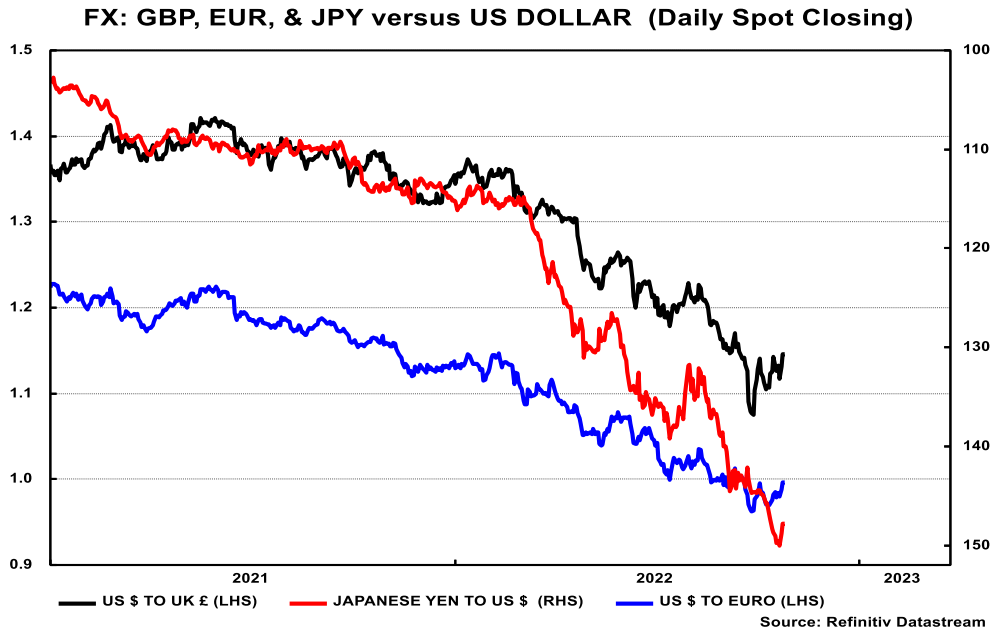
To see the difficulties generated by unnecessarily low money growth one only has to consider what happened in the euro area between 2010 and 2015 as mentioned above. The lesson is that monetary policy (i.e., monetary growth) dominates fiscal policy, and that fact should be used to ensure continued stable growth of nominal GDP while also bringing down public debt ratios.

Excessively high levels of corporate or household debt are a slightly different matter. Here some degree of de-leveraging is necessary, but again achieving this is much easier in the context of rising nominal incomes than in an environment of squeezed nominal (or real) incomes.

(4) Euro currency weakness

In recent weeks the euro has fallen below parity against the US dollar, and both the pound and the Japanese yen have depreciated against the US dollar. In large measure these currency declines have matched the widening interest rate differential with the US and will probably continue to do so as long as the Fed is perceived to be conducting a tighter monetary policy than either the ECB, the Bank of England or the Bank of Japan.

Figure 5. Currencies currently driven by interest rate differentials with the USD



In the short term there is an impact from currency depreciation on measured inflation through the higher price of imported goods and services, but this cannot be sustained unless it is validated by continued rapid money growth. In the current circumstances with inflation already a problem for most central banks, money

growth is being restricted across most major economies, which means that some of the "imported" inflation will turn out to be purely temporary.

An alternative scenario is that currency depreciation is abruptly reversed when the US dollar peaks and currencies revalue against the US dollar. Given the amounts by which the three currencies in Figure 5 have already depreciated against the dollar, this possibility is becoming increasingly likely. Although the Bank of Japan has now intervened twice in the currency markets, it is unlikely that other central banks will follow the Bank of Japan.

Much more probable is that as and when traders and investors perceive that the Fed has completed its rate hikes and they begin to perceive the prospect of rate cuts, then the currencies could move very rapidly in the opposite direction. In my view this will not happen until the spring of 2023 at the earliest, but when it happens the move could be very strong and violent – similar to the move in the US dollar after the Plaza Agreement in September 1985.

Summary and Conclusions

- The Eurozone, and especially its monetary system under the ECB, faces three fundamental issues that urgently need correction.
  1. Nothing in the 2020-21 ECB Review of monetary policy strategy suggests a shift to monitoring M3 growth. The ECB's misguided strategy of managing money through interest rates will persist, resulting in erratic M3 growth.
  2. The ECB's QE operations were in large degree a failure, but the TLTROs were more successful. If the ECB should shift to QT, they will likely continue to focus on banks as their sole counterparty.
  3. The ECB will continue to extend its mandate from inflation control to other social goals. Such changes are unwarranted and a distraction from its real task of managing money and inflation.
- The **cyclical issues** confronting the euro area are serious but easing.
  1. Based on M3 growth, i**nflation** is approaching a peak, but it will remain elevated through 2023 and into 2024. The current inflation is a result of excess M3 growth in 2020-21; interest rate hikes now will do little to bring it down and could worsen the recession if they cause M3 growth to stall or decline.
  2. The high prices of gas, oil, food, and other commodities associated with the war in Ukraine, sanctions on Russia, and the Russian countermeasures are **relative price** issues, not problems of the overall price level.
  3. The levels of government and private sector **debt** are serious and will exacerbate the coming recession, but they are essentially cyclical and are best addressed by stable money growth and sensible fiscal policies.
  4. The weakness of the **euro currency** is largely a result of interest rate differentials with the USD and perceptions of monetary policy. The value of the euro is likely to reverse abruptly when markets perceive the Fed to stop tightening or start easing – probably in spring of 2023.

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