What is the best way for Italy to leave the eurozone?

Gideon Magnus

November 21, 2018

1 Introduction

On July 26, 2012, European Central Bank (ECB) president Mario Draghi famously stated that: "The ECB is ready to do whatever it takes to preserve the euro".[1] His remarks came at the tail end of the European Debt Crisis, which began in late 2009 with investors becoming increasingly worried about the solvency of various eurozone member states, in particular Greece, Portugal, Spain, Ireland, and Italy.[2] One country, Greece, did explicitly default, to the order of about €110 billion.

The policy response to the crisis was chaotic, which most likely exacerbated its magnitude, but also clearly revealed the fundamental weaknesses of the euro project. Although markets currently appear calm, it is quite conceivable that problems will re-emerge. This raises the question of whether the euro can ultimately survive, at least in its current form, and whether all members will remain.

Italy has the eurozone's third largest economy, but a public debt of over 130 percent of GDP,[3] poor economic growth prospects, and a notoriously dysfunctional political system. It is not surprising, then, that investors worry about Italy's solvency. In recent months Italian bond yields have risen as the new government has struggled to pass a budget.[4]

Although the probability of Italy leaving the eurozone soon is low, it is not inconceivable that it will happen in a few years' time. No matter how

[1] https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html

[2] See e.g. Mody (2018).

[3] In fact, Italy has the largest amount of public debt of any European country.

[4] https://www.ft.com/content/1bb62ce4-e656-11e8-8a85-04b8afea6ea3

it is managed, an Italian exit would have significant economic and political reverberations across Europe and beyond.

The euro is a unique historical experiment. There are few, if any, precedents: historical currency union breakups almost all amounted to the abandonment of a fixed exchange rate regime. It is therefore a novel challenge to think about how an Italian exit might unfold, and how the Italian government could ensure that the economic damage is minimized.

2 The fundamental weakness of the euro

The euro arguably represents the first instance of a full-fledged currency union. However many have questioned whether the eurozone constitutes a so-called "optimal currency area".[5] More importantly, the euro suffers from a fundamental weakness, namely that the currency is a joint liability of all countries in the union, but because the countries are not in a political union, it is unclear to what degree the countries bear the burden of this liability. The EU does not have the power to tax EU citizens, like, say, the US federal government does.

As stated by Bergin (2000): "A rise in debt unbacked by future taxes of just one member government has the ability to raise the price level throughout the monetary union." In other words, one fiscally irresponsible member can impose inflation costs on all members. For this reason, the EU attempted to impose fiscal discipline on its members, most notably through the Stability and Growth Pact, which entered into force in 1998. However the EU has no power to enforce this agreement, and so it has been ignored by many members, including France and Germany.

In a federal EU, a fiscally irresponsible member state wouldn't have the ability to impose costs on others: there would be no alternative but default. In contrast, it is ambiguous whether insolvent eurozone countries will be forced to default or not: there are no enforceable rules for dealing with countries that cannot service their debt obligations. Instead, when a country runs into fiscal trouble, a political solution is required, which always creates a host of uncertainties and complications.

Put differently, the problem is that "when push comes to shove", the euro requires a commitment from the eurozone governments to support its value with tax revenues. But since the EU has no authority to force countries to do this, there is a strong incentive for individual countries to shirk their responsibilities, since the costs outweigh the benefits: a classic collective action problem.

[5] See e.g. Eichengreen (1992)

In fact, even if the EU had the power to tax EU citizens, the collective action problem to some degree still exists, since the ECB has directly and indirectly purchased bonds issued by various governments. The ECB began a program of "Quantitative Easing", during which it purchased over €2.3 trillion in assets consisting mostly of government bonds.[6] As a result, the balance sheet of the ECB has doubled, to about €4.6 trillion, or about 43% of eurozone GDP.[7] Thus, if one government defaults, the losses would be borne by all EU citizens. This is akin to the Federal Reserve purchasing municipal debt, which then defaulted.

3 Italy exits the eurozone

The future of the euro remains uncertain. A full political union would solve the problems described above, and although this is favored by some, it is highly unpopular among Europeans generally. It may well happen that, despite its inherent problems, the euro continues to exist just as it has so far. But the probability of a breakup is non-negligible, and it is worth thinking about the possible consequences.

I focus here on one of the countries most likely to leave: Italy. Although the likelihood is small, at least for now, this may well change in the future. Surprising political developments happen all the time. Moreover, Italian support for the euro has decreased markedly,[8] and may well decrease further, especially as the euro is often viewed in conjunction with other unpopular aspects of the EU project, in particular the free movement of people.

Let us assume that Italy's new currency will be called the *lira*. The effects of Italy switching to the lira will depend a lot on how it is done. A key issue is how the government communicates its plan to the outside world. If, for instance, a rumor spreads that the government is considering a euro-exit, this would probably lead to severe disruptions in the financial system and economy. It is not surprising, then, that eurozone governments have (by and large) strongly affirmed their commitment to remaining.

The decision to exit must be approved by the Italian parliament. This means that it is infeasible for the plan to become known only after it will definitely be implemented. An exit plan should therefore be crafted in a way that minimizes disruptions, regardless of whether it is actually implemented.

[6] See https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html

[7] https://www.wsj.com/articles/ecb-to-end-bond-buys-as-crisis-policies-wind-down-1528977227

[8] https://www.reuters.com/article/us-eurozone-italy-euro-graphic/decline-and-fall-how-italy-fell-out-of-love-with-the-euro-idUSKCN1IW252

Although an Italian euro-exit is a political decision, it may at some point become essentially impossible for Italy to remain. As exit becomes inevitable, it is important that the government can quickly communicate a workable plan that causes the least amount of harm.

3.1 Why communication matters: the banking system

The main reason why a poorly communicated exit plan would cause tremendous harm lies in the banking system. A bank, like any company, has a balance sheet with assets equaling liabilities. When the value of a company's assets falls, the value of its liabilities fall commensurately. An important liability for banks is deposits, for instance checking and savings accounts. When the value of a bank's assets fall, this first affects its shareholders, then creditors, and finally depositors. If a bank's assets are less than the value of its debt plus equity, then the value of deposits *should* fall. This is unpleasant for depositors, but a fall in wealth does not, in general, hurt economic incentives, efficiency, and performance.

But this is not what happens in practice. Instead, banks promise (or at least people believe) that their deposits are safe. In other words, we have a clear example of a *price control*, which leads to socially inefficient behavior, specifically, queuing. When there is a price control on gasoline prices, there are long lines at gas stations; when the value of deposits is greater than a bank's assets, we see a *bank run*. History has repeatedly shown that bank runs can be very costly.

Of course, one way to solve this problem would be to reform the banking system and make depositors bear risk, just as a bank's shareholders and creditors do. There is no inherent reason for the price control in banking to exist. But reforming the banking system along these lines is politically difficult, if not impossible.

In practice, governments guarantee deposits, at least up to a certain maximum amount. Honoring this guarantee is complicated, however, when many banks are facing insolvency at the same time, and when the government itself is close to insolvency. Somewhat paradoxically, the best time to leave a currency union is when the country's fiscal situation is sound, but an exit is in fact more likely, the more precarious the fiscal situation is.

A bank run could ensue if people are worried that a currency switch will cause a sharp drop in the value of a bank's assets. As I argue below, this is a very real risk, and therefore the most important part of an exit plan is that the Italian government clearly communicates its firm commitment to protect bank deposits.

3.2 Logistical hurdles

Switching from one currency to another involves several logistical hurdles. A new physical currency (i.e. notes and coins) will need to be issued. But this cannot be done on short notice. One possibility would be to do this in secret, before announcing the exit. However maintaining secrecy of such an endeavor seems next-to-impossible.[9] This means that the "full" switch must happen quite some time after the exit has been publicly announced.

One option would be to make the switch quickly, but keep the euro as a unit of exchange for a while. This seems cumbersome however. For instance, shops would list prices and accept electronic payments in lira (e.g. debit cards), but would have to convert prices to euros for customers who want to pay in cash. Bank accounts would be denominated in lira, but all withdrawals would be in euros. This would create some hassle but is not impossible: for example, you can withdraw cash from your checking account at a foreign currency ATM. This would be easier if the lira were pegged to the euro during this period. However currency pegs are notoriously difficult to maintain, and it seems unlikely Italy would be able to do so.[10]

The full switch to the lira can only happen after notes and coins are ready for distribution, which could easily take a year. What should happen between the moment the euro-exit is announced and the moment it actually happens?

To minimize disruption, it seems best that the euro continues to be the unit of account and medium of exchange during this interim period. The lira, in contrast, would start off as a parallel currency that only exists in electronic form, and is traded on international financial markets with a free-floating value.

How might this new electronic lira be created? A simple way would be to announce that (practically) all Italian government debt is converted one-for-one to lira. Thus, a bond that promises a future payment of €1,000 becomes a bond that promises a future payment of 1,000 lira. Any newly issued debt would also be in lira.

When bond payments come due, bondholders receive electronic reserves which may pay interest, just like dollar reserves issued by the US government.[11] Since it could take time to set up new lira-denominated accounts,

[9] There is however an example of this being done: in 2011, the government of South Sudan printed new notes and coins in secret six months before introducing a new currency, the South Sudanese Pound.

[10] Some countries do manage to do this, for instance, the Danish Krone is pegged to the euro.

[11] The interest rate would be decided by the Bank of Italy, Italy's central bank.

it may make sense to keep short-term debt and coupon payments euro-denominated. To increase the supply of reserves further, the Bank of Italy (BoI, Italy's central bank) could do some quantitative easing, i.e. buy up long-term debt in exchange for reserves using reverse auctions.

There would most likely be a significant devaluation: Italian bonds would trade at a steep discount when priced in euro. This devaluation would provide an immediate benefit to the Italian government (i.e. the Italian people). However, since Italians hold a significant amount of this debt themselves, this benefit would be muted: currently, only about a third of Italian sovereign debt is held abroad.

More important is the fact that about a quarter of Italian government debt is held by Italian banks. A devaluation of Italian debt would therefore imply a significant negative shock to the Italian banking system. As discussed above, without government intervention this could well lead to a series of bank runs.

Under this plan, in the short run not too much changes. The euro remains the main currency used for transactions, and prices and wages remain euro-denominated. The announcement of this plan should probably be done at a time when banks are closed, for instance a (long) weekend. This will give people time to digest the news, and rule out immediate bank runs.

The full currency switch would be made at a later time, likely at least a year later. It would be advisable to do this on a January 1st, just as when the euro was introduced. For one thing, this would make it easier for Italians to do their taxes, since all income was earned in one currency. When the full switch is made, all prices and wages are converted from euro to lira at the prevailing exchange rate, and lira notes and coins are distributed. So for instance, suppose one lira buys 80 euro cents, i.e. the lira had depreciated by 20%. In that case, a worker making €800 a month would now be making 1,000 lira. For existing private debt contracts, it would probably be best to let people decide for themselves whether to redenominate. For instance, it may make more sense to do this for a mortgage than for a corporate bond issues by an Italian multinational.[12]

[12] An interesting question is whether a redenomination constitutes a credit event, in which case certain derivatives, in particular credit default swaps, would be forced to pay out. According to Scott (2012) (p47): "For the larger Member States that are in the G7, such as Italy, a coercive restructuring would trigger CDS payments while a redenomination would not."

3.3 Devaluation

As mentioned, the devaluation of the lira would provide immediate debt relief to the Italian government. However, all other prices and wages remain euro-denominated, and would (most likely) not devalue relative to prices and wages in other countries.

Exchange rate fluctuations can produce a rapid change in relative prices between countries, and it is often claimed that this flexibility helps absorb economic shocks and promotes growth. Although I am somewhat skeptical of this theory, this purported benefit would be reaped, but only after the full currency switch is made.

4 Protecting the banks

In an ideal world, governments would not need to be heavily involved in their banking systems, however the costs of not doing so often outweigh the benefits. As mentioned, the most important part of an exit plan is arguably a clearly communicated commitment to protect Italian bank deposits. The government should probably state that protecting deposits are a higher priority than its other fiscal commitments.

Numerous governments in the past have done comparable operations. For instance, in 1992 the Swedish government extended guarantees to all bank deposits and creditors of the nation's banks.

Bank deposits, which would initially remain euro-denominated, would be vulnerable since Italian banks hold Italian government debt, but this debt would be redenominated in lira. If the lira devalues, banks may run into financial difficulties.

A key question is whether the Italian government has the resources to protect deposits. It should be noted that the direct benefit provided by the devaluation would always be greater than the cost of protecting deposits, since there are many parties that hold Italian debt besides Italian banks.

Nevertheless, if the government debt is sufficiently high, it may not have the fiscal ability to offer protection. This situation is sometimes referred to as a "doom loop".[13] In that case, there may be no other option but for depositors to incur a loss. This could be done in many ways, for instance, deposits could be partially converted into bank equity (this is often called a "bail-in").

[13] See e.g. https://www.ft.com/content/64e07884-64e2-11e8-a39d-4df188287fff

4.1 Italian sovereign debt and banking statistics

Under current circumstances, which I discuss below, I believe the Italian government would be able to protect depositors. But of course this does not mean this will be the case when an Italian euro-exit actually happens.

The Italian Treasury issues debt of various maturities; see figure 1. The average maturity is just under 7 years. 12% of debt is inflation-indexed.[14]

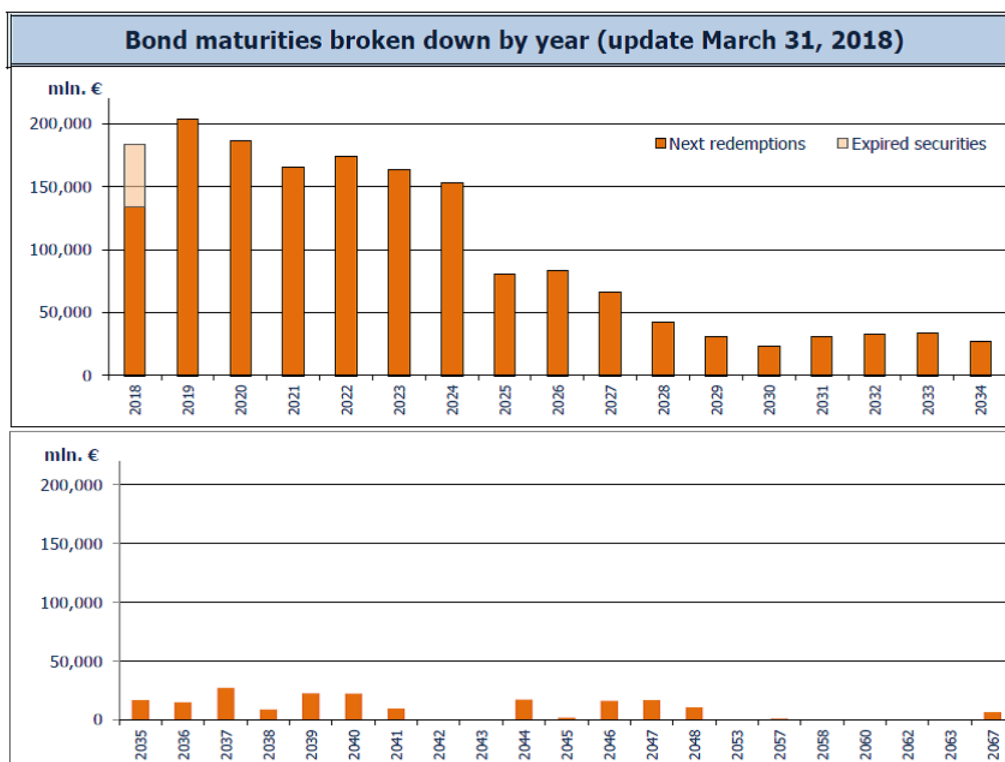

Figure 1: Maturities of outstanding Italian sovereign debt. Source: Italian Treasury Quarterly Bulletin N. 77 – April 2018

At the end of 2017, Italian government debt totalled €2.26 trillion, while GDP was €1.72 trillion, so the debt-to-GDP ratio was 132 percent.[15]

The public debt is broken down into currency and deposits (7.6%), debt securities (84.5%), and MFI loans and other securities (7.9%).[16] MFI stands

[14] Indexed treasury bonds are called BTPis. See https://www.bancaditalia.it/compiti/operazioni-mef/index.html?com.dotmarketing.htmlpage.language=1

[15] http://www.dt.tesoro.it/en/debito_pubblico/_link_rapidi/debito_pubblico.html

[16] Numbers for the end of 2017. Source: http://www.bancaditalia.it/pubblicazioni/finanza-pubblica/index.html, Table 8.

for Monetary Financial Institution, as defined by the ECB (basically, an MFI is a bank). 87% of government debt consists of debt securities with maturities greater than a year.

Who holds Italian government debt? At the end of 2017, 16.3% was held by the Bank of Italy, 26.5% by resident banks, 19.3% by other resident financial institutions, 5.6% by other residents, and 32.3% by non-residents.[17] The total amount held by resident banks was €599,611 billion.[18]

What fraction of Italian bank assets consists of Italian government debt? At the end of 2017, total assets of the Italian banking sector were €3.7 trillion.[19] Thus, about 16% of Italian bank assets was Italian sovereign debt.

The equity-to-asset ratio of the Italian banking sector is about 12%.[20] Debt issued by banks constitutes about 9% of total liabilities, the rest (79%) is almost all deposits. Thus, even if government debt lost all its value, the banking sector's debt and equity should still form a sufficient buffer to protect depositors. If Italian debt devalued by 30%, Italian bank equity would likely fall by 40%. A back-of-the-envelop calculation thus suggests that, all else equal, if Italian debt devalued by 75% or more, Italian banks as a whole would be insolvent. If debt devalued by 30%, and the Italian government *fully* recapitalized Italian banks, the government would benefit from the devaluation by about €680,000 billion, but the bailout would cost about €180,000 billion, so the net gain would be about €500,000 billion.

One measure that would make protecting Italian banks less costly would be to require all debt issued by Italian banks to be converted immediately into lira. A more extreme measure would be to force all Italian bank debt to be converted into equity.

5 Related work

The main intellectual effort to assess this question was spurred by the 2012 Wolfson Prize.[21] The winning entry was written by Roger Bootle and his team at Capital Economics.[22] The other finalist submissions can be found here, here, and here. In fact, these papers influenced a 2015 plan ("Plan B")

[17]Source: http://www.bancaditalia.it/pubblicazioni/finanza-pubblica/index.html, Table 5.

[18]This amount consists of securities (€333,522), as well as loans and deposits.

[19]Source, Table 1.2.

[20]Source, Table 1.2.

[21]See also Proctor (2011), Scott (2012), and Nordvig (2013).

[22]https://www.capitaleconomics.com/wp-content/uploads/2016/11/wolfson-prize-submission.pdf

laid out by Paolo Savona, currently Italy's Minister of European Affairs.[23]

A key difference between these proposals and mine is that they advocate a full currency switch in a fairly short space of time, whereas I propose keeping the euro as the primary currency while creating a new parallel currency that becomes the primary currency at a later date. Since physical currency cannot be printed quickly, Bootle proposes that euro notes and coins be used until the new currency is ready to be distributed. To deal with the banking issue, he proposes closing all banks and imposing capital controls as soon as news of an exit plan leaks out.

I believe Bootle's plan will cause more disruption than necessary. For one thing, it will take some time between the moment the plan leaks out and the time it is approved by parliament. Closing all banks and financial markets during this time period could be very costly. In 2001, the Argentinean government almost completely froze all bank accounts for a year (the so-called *corralito*). This led to rioting (including some 40 deaths), a state of emergency, and the fall of the government.[24] Having the lira be the unit of account but the euro the medium of exchange is certainly possible, but cumbersome.

A euro exit involves many uncertainties and logistical hurdles. Attempting to manage all this in an orderly way in a short space of time will be very difficult, and likely create an unnecessarily chaotic situation. My proposal, in contrast, involves a more gradual approach, and focuses foremost on the issues that are crucial to get right in the short run. This will allow the precise details of the transition to be discussed and decided in an open, sensible, and slow-paced way.

6 Final considerations

I have outlined the main features of an exit plan, but there are naturally many additional issues and details to consider. For instance, officially, a country leaving the euro would also have to leave the EU. But this is probably not something Italy will want. However in matters of international law nothing is ever truly fixed. As stated by Bootle (2012) (p34): "Despite much confusion on this point, there does not appear to be any insurmountable legal barrier to a country leaving the euro and remaining within the European Union (EU), even without the prior agreement of other member states." For a lengthy discussion of this issue see Scott (2012).

[23] See https://scenarieconomici.it/il-piano-b-per-litalia-nella-sua-interezza/

[24] https://www.bbc.com/news/world-latin-america-15981406

Another issue I have not discussed is the effects an Italian exit would have on other countries, in particular those that people might expect to also leave the eurozone, for instance Greece, Spain, and Portugal.

References

Bergin, Paul R. 2000. “Fiscal solvency and price level determination in a monetary union.” *Journal of Monetary Economics*, 45(1): 37 – 53.

Bootle, Roger. 2012. “Leaving the euro: A practical guide.”

Eichengreen, Barry. 1992. *Is Europe an Optimum Currency Area?*. 138–161, The European Community after 1992: Perspectives from the Outside, London: Palgrave Macmillan UK.

Mody, Ashoka. 2018. *EuroTragedy: A Drama in Nine Acts.*: Oxford University Press.

Nordvig, Jens. 2013. *The Fall of the Euro: Reinventing the Eurozone and the Future of Global Investing.*: McGraw-Hill.

Proctor, Charles. 2011. “The euro – fragmentation and the financial markets.” *Capital Markets Law Journal*, 6(1): 5–28.

Scott, Hal. 2012. “When the Euro Falls Apart – A Sequel.” *Harvard Public Law Working Paper*(12-161): .