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Are extremely low interest rates really caused by insufficient growth and inflation rather than by ECB policy?

Eric Dor
IESEG School of Management

Are extremely low interest rates really caused by insufficient growth and inflation rather than by ECB policy?

An examination of ECB's defense against German critiques

Eric Dor

Director of Economic Studies at IESEG School of Management

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Introduction

To fight deflationary pressures in the euro area, the ECB has been conducting exceptional policies, such as negative interest rates on excess reserves of banks on their accounts at the Eurosystem, or massive purchases of assets, essentially public bonds. The interest rate on the main refinancing operations is 0. Targeted long term refinancing operations are going to allow banks to borrow at potentially negative interest rates from the Eurosystem provided that they lend enough to the private sector. All these measures have pushed long term interest rates downward in the euro area. German public bonds yield negative returns for a whole set of maturities. Interest rates on saving accounts in German banks are extremely low. This policy of extremely low rates has been heavily criticized in Germany. The ECB is accused of exaggeratedly lowering the income of savers and retirees whose revenue partly depends on the return of accumulated wealth.

The ECB has been defending its policy against the critiques in Germany. The main arguments of defense used by the ECB are

- Low interest rates would be the consequence of low growth and inflation, instead of being caused by the monetary policy of the central bank
- Current levels of real interest rates would be far from being abnormal in a historical perspective
- German households could still earn a good return on their saving if they bought equities
- German households are also borrowers benefiting from low rates

This paper critically examines the validity of these arguments of defense, both by confronting them to empirical evidence, and by assessing the relevance of the economic reasoning which is used.

A) Low interest rates would be the consequence of low growth and inflation

a) claims of the ECB

The defense of the ECB is basically to claim that **low long term interest rates** are not primarily the consequence of an arbitrary policy of the ECB, but **are caused by the low growth and low inflation environment**.

The defense also uses the argument that the ECB simply pursues policies aiming at **increasing real growth and inflation, which in turn will push long term interest rates upward**.

Mario Draghi, the president of the ECB, has clearly expressed this point of view during the [press conference](#) of April 21, 2016:

« But the bottom line of this is that our policies are: the necessary policies for return of the inflation rate to our objective of a level below but close to 2%;, the necessary conditions for return of growth to a higher level;; and the necessary conditions for the return of interest rates to a higher level than today. »

*« Second point: **low interest rates are a symptom of low growth and low inflation. It's not the monetary policy consequence.** As I said before, if we want to return to higher interest rates, beforehand we have to return to higher growth and higher inflation. To do so, we need the current monetary policy. That's the necessary condition. »*

Mario Draghi repeated these arguments during [an interview](#) with Bild on April 27, 2016

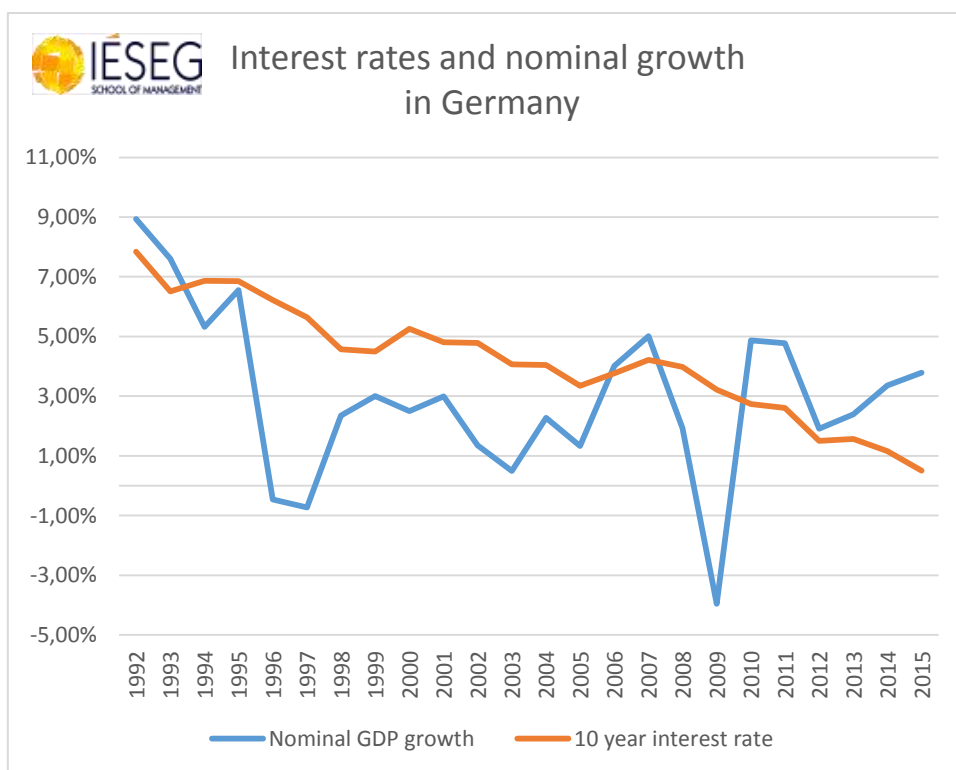
*« But interest rates are **low because growth is low and inflation is too low.** »*

« The interest on savings comes from growth »

b) Confronting these claims to the past observed relationship between interest rates, real growth and inflation

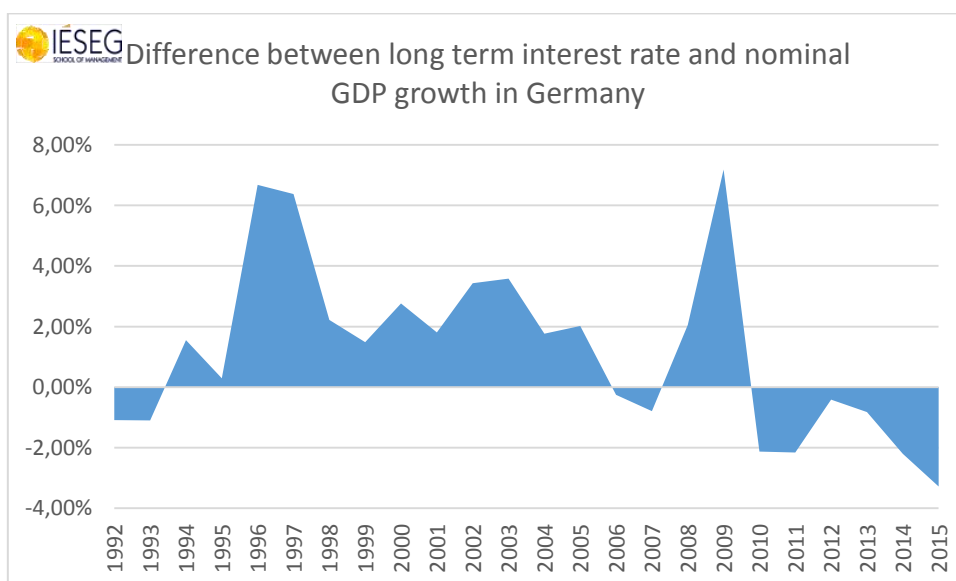
If such arguments are valid, it should be observed on long time series of past data that long term interest rates tend to be low when real GDP growth and inflation tend to be low. **It should thus be observed that long term interest rates tend to be low when nominal GDP growth is low.** Indeed Nominal GDP growth is the sum of real GDP growth and inflation, here measured by the rate of growth of the GDP deflator.

Data collected since the reunification of Germany however show that the nominal long term interest rate has generally been significantly above the rate of growth of nominal GDP. Of course the trend of nominal interest rates follows the trend of nominal GDP growth. But until 2009 their difference generally remains substantial.



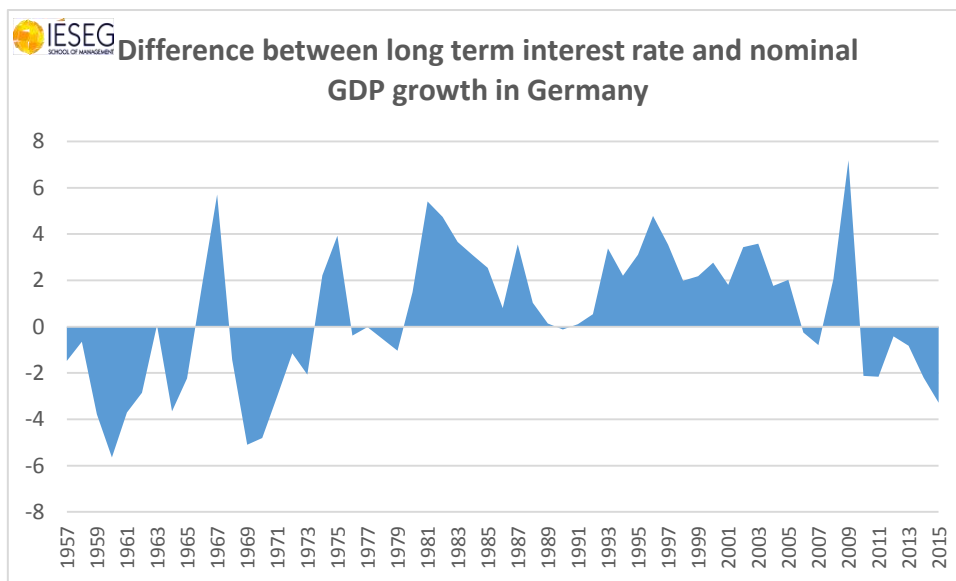
Data source: Eurostat

Therefore the sharp decrease in the difference between long term rates and nominal GDP growth during the recent years represents a departure from the previously observed relation. **It is thus clear that the recent decrease of German nominal long term rates is much higher than what it should have been given the evolution of nominal GDP growth.**

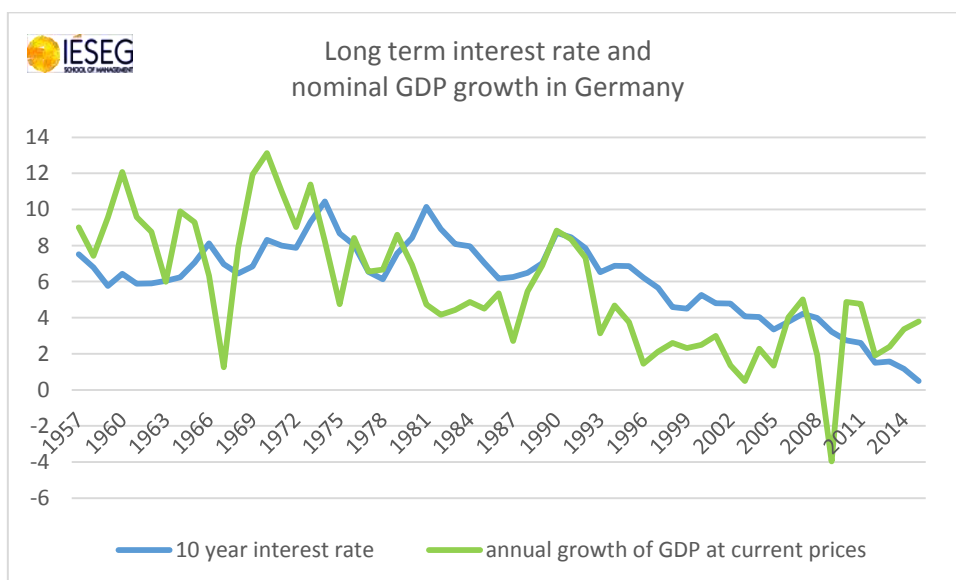


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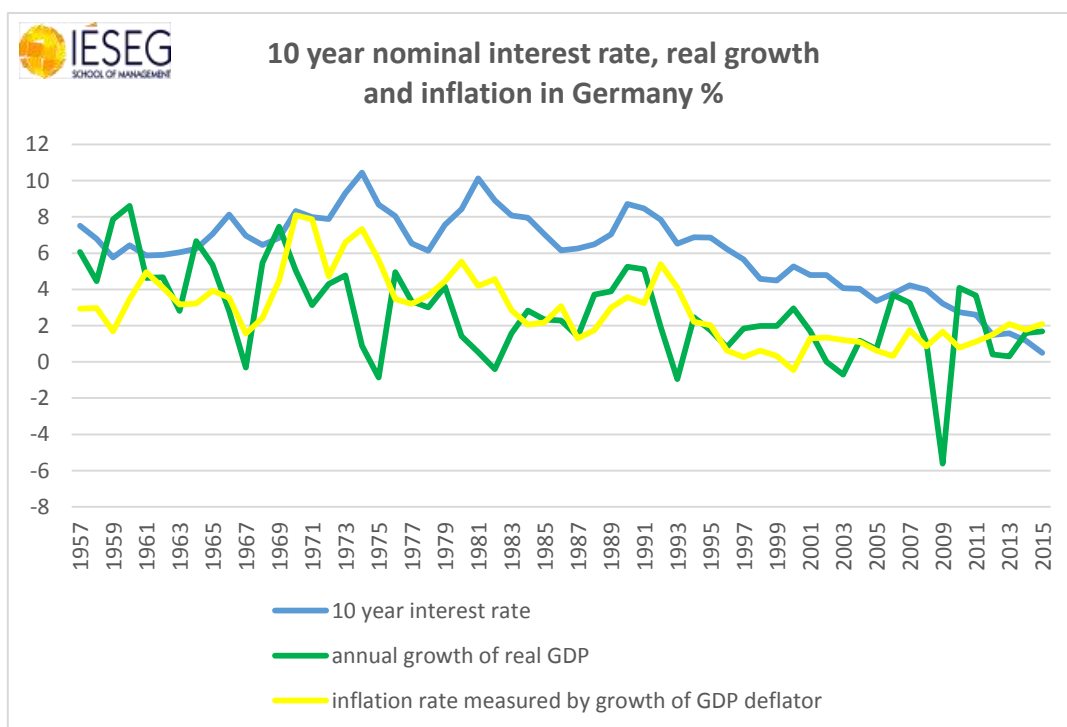
It could be pointed out that, in the years 1950s and 1960s, at the time of Western Germany, long term interest rates had often been far below nominal GDP growth.



Source of the data: Destatis, OECD, Eurostat

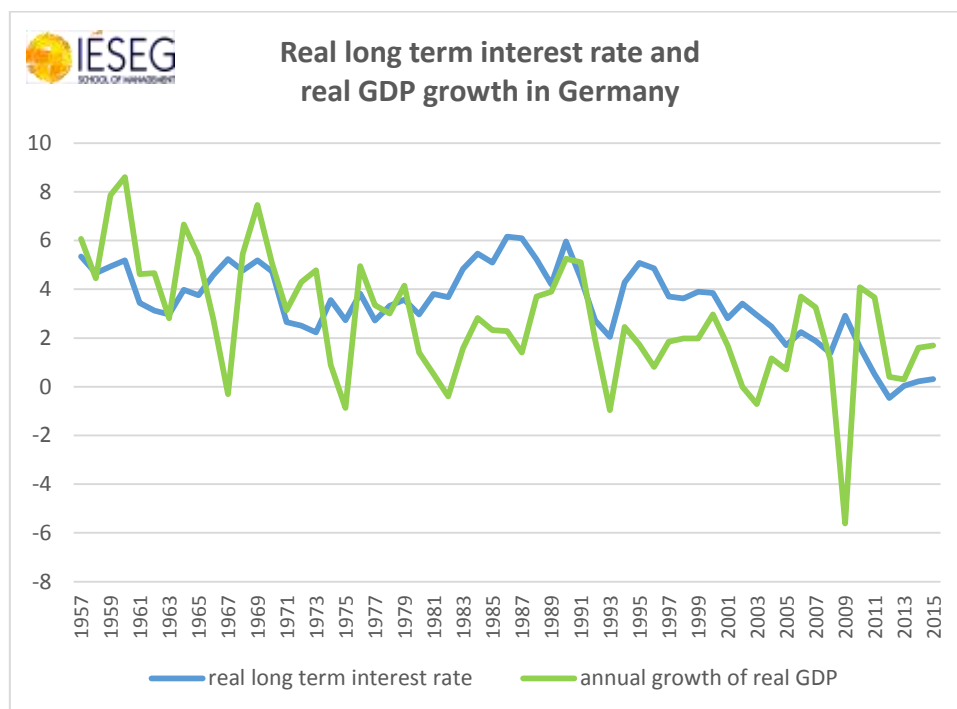


However during these periods real growth and inflation were much higher than now. It was not at all a story of nominal interest rates being naturally pushed down by low real growth and low inflation. What happened then cannot be used to justify the current level of long term interest rates as compared to nominal GDP growth.



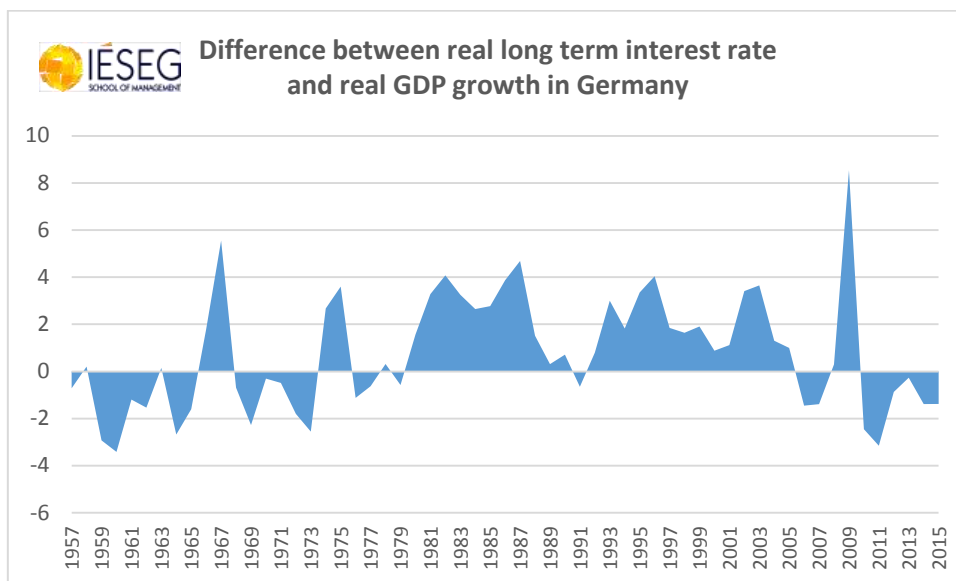
Source of the data: OECD

The ECB claims that the current relatively low real growth rate necessarily implies low real interest rates. But such an automatic relation between real growth and real interest rates is contradicted by the facts. The relationship between real interest rates and real growth appears to be very loose in a historical perspective. In the past real growth has often been at the current level, with much higher real interest rates.



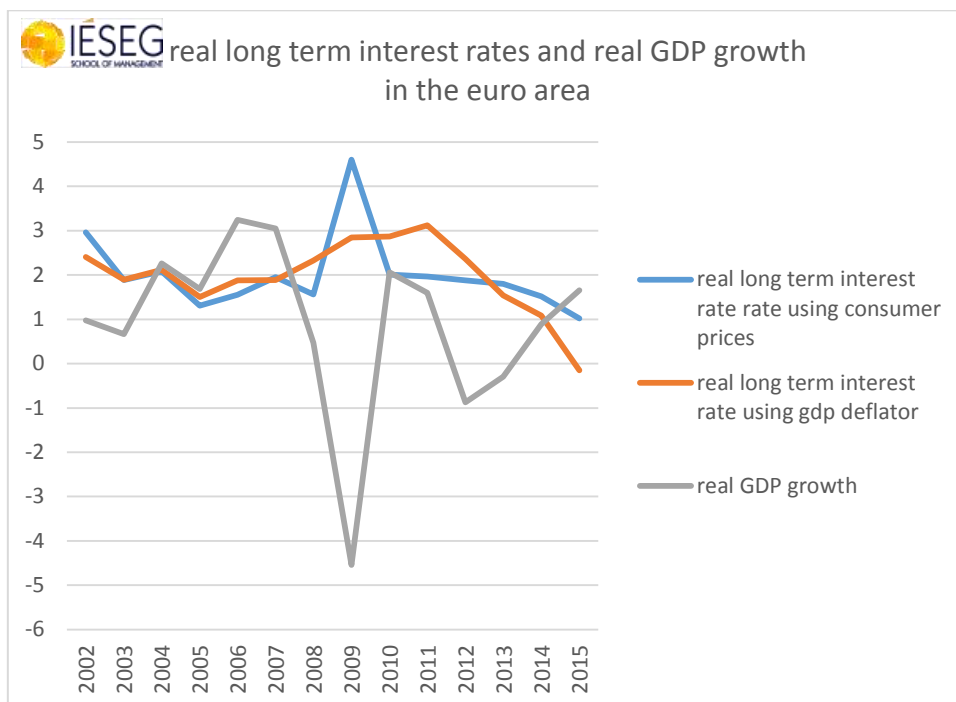
Source of the data: Destatis, OECD, Eurostat

Most often the real interest rate is above the real growth rate. The contrary, which happens now, is less frequent.



Source of the data: Destatis, OECD, Eurostat

Of course the ECB takes account of the situation of the whole euro area rather than only Germany. Statistics for the whole euro area of course cover a much shorter period. They confirm that the relationship between real growth and real interest rates is rather loose.



Data source : AMECO, Eurostat

The gap between real interest rates and real GDP growth is varying a lot.

To summarize, past data do not support the idea that, in view of the current values of real growth and inflation, nominal and real interest rates should be that low.

Thus it is clear that real interest rates in the euro area would not have spontaneously converged to their current low levels, in response to low real growth and inflation, without the intervention of the ECB. Low real growth and inflation would not have spontaneously driven real long term interest rates to their current historically low levels if the ECB had not deliberately pushed them downward.

It is interesting to note that this truth has been explicitly recognized by Vítor Constâncio, vice president of the ECB, during a [speech](#) in April 2016:

*« In other words, **the low level of nominal interest rates in advanced economies before and after the crisis cannot be explained only by the “savings glut” view ... monetary policy also has a decisive influence on interest rates that cannot be explained by the loanable funds theory alone. Short-term market nominal rates are directly influenced by monetary policy rates and via expectations of future policy rates, and risk premia policy rates also influence medium and long-term market rates.** »*

The claims of the ECB must thus be interpreted another way. The ECB means that the current real growth and inflation perspectives are so low that the central bank is compelled to push real interest rates downward to such atypically low levels, in order to fulfill its mandate. It is in this sense that, according to the ECB, low nominal and real interest rates would be a mere consequence of low real growth. To justify such a position, the ECB claims that, compared to past experience, the perspectives of real growth and inflation are exceptionally worrying. This atypical situation would require exceptional monetary policy measures.

c) assessing the validity of the savings glut, secular stagnation and other economic justifications used by the ECB

The above graphs show that, well before the exceptional monetary policy measures decided by the ECB, the excess of real interest rate over real growth had a tendency to decrease in Germany, like in other industrialized countries. In other terms, real interest rates have had a tendency to decrease faster than the real growth rate.

The ECB claims that this phenomenon is due to fundamental causes that are still present today and are even intensifying, pushing real interest rates downward with a higher intensity than in the past, whatever the policy of the ECB. To establish this assessment of the current situation, the ECB relies on several controversial macroeconomic theories that have recently become increasingly popular among central banks. These theories are essentially known as the savings glut and the secular stagnation hypotheses. Initially these theories were attempts to rationalize the observed decline of the real interest rate in the United States and most industrialized economies since the eighties.

The starting point is the very old theory of loanable funds according to which the real interest rate must adjust to equalize saving and the part of demand that exceeds consumption. Investment and net public spending need to be funded and are thus considered as a demand for funds to borrow. On the other hand private saving is considered as a supply of funds to lend. Private saving is supposed to increase with the real interest rate, while investment is assumed to be a decreasing function of real interest rates. The classical economists claimed that the equilibrium of the goods and services market requires that the real interest rate adjusts to equalize private saving and the sum of investment and net public spending.

The reasoning is easily extended to an open economy. Countries with a trade surplus have an excess saving over the domestic needs, and thus provide loanable funds to the rest of the world. Countries with a trade deficit have a lack of saving compared to their domestic needs, and have to borrow that amount from abroad. The trade deficit of a country is funded by a foreign supply of funds from foreign saving. This foreign supply of saving is also an increasing function of the real interest rate. The real interest rate thus has to adjust to equalize the supply of funds, which is the sum of domestic saving and the trade deficit, with the demand of funds, which is the sum of domestic investment and government net spending.

This reasoning of the classical economists has been refuted by Keynes. It has also been criticized by Kalecki and all the Post Keynesian economists in general. Their idea is that there is no need of a preexisting private saving to provide the credit needed to finance investment and the public deficit. Below full employment, an increase of investment increases production and income, and therefore increases saving. Saving is caused by investment rather than the contrary. They also explain that, below full employment, it is the production level that adjusts to equalize desired private saving with the sum of investment and net government spending. Most economists, whatever their school of thought, have long accepted this logical criticism of the loanable funds theory. However, despite these critiques, contemporary new Keynesian models, which add price rigidities and market imperfections to the neoclassical framework in order to produce Keynesian like results, incorporate a version of the classical loanable fund theory. This is why they are also [convincingly](#) called neo-Wicksellian models. Such models are routinely used by the major central banks.

The [saving gluts](#) theory was initiated by Ben Bernanke, before he became the chairman of the Federal Reserve, in 2005. He essentially considered that the very large trade deficit of the United States and the low level of real interest rates were the result of a huge excess saving, a savings glut, in emerging countries like China. He claimed that “over the past decade a combination of diverse forces has created a significant increase in the global supply of saving—a global saving glut—which helps to explain both the increase in the U.S. current account deficit and the relatively low level of real long-term interest rates in the world today.” Ben Bernanke claims that, after the Asian crisis of 2007-2008, many emerging countries decided to conduct a policy designed to accumulate foreign reserves to protect themselves against a new reversal of capital flows. This objective required a large current account surplus. Therefore they depressed their domestic demand in order to contain imports, and they conducted interventions on the markets to avoid any appreciation of their currency against the dollar, in order to keep their competitive advantage and boost their exports. Normally the surplus of their trade balance should have led to an appreciation of their currency. But to avoid this appreciation, their central banks issued domestic currencies and used them to buy the dollars that were flowing to these countries. Thereafter they invested these dollars in the United States, for example by buying US government bonds. These countries had an enormous trade surplus and thus an enormous amount of excess saving over domestic funding needs. This huge excess saving of emerging countries had been in search of investment opportunities, particularly in liquid and safe assets. US assets meet these criteria. On the contrary there was a “shortage of safe assets” in countries where the financial system was insufficiently established. This excess saving of emerging countries has thus flowed to the United States and other advanced countries. In such advanced countries like the United States, the supply of funds has thus increased and caused a decrease of real interest rates, according to Ben Bernanke. The ability to borrow at low real interest rates lead to excessive consumption and insufficient domestic saving, to excessive real estate construction and to useless investment in projects with low returns which however became profitable. The real estate bubble leading to the subprime crisis would be a consequence of this savings glut. Ben Bernanke claims that “in practice, these countries increased reserves through the expedient of issuing debt to

their citizens, thereby mobilizing domestic saving, and then using the proceeds to buy U.S. Treasury securities and other assets. Effectively, governments have acted as financial intermediaries, channeling domestic saving away from local uses and into international capital markets". Ben Bernanke thinks that this problem is still currently persisting. He admits that the trade surplus of emerging countries has decreased since 2005, but that it [is compensated](#) by a surge of the excess saving of the euro area, the trade surplus of which has sharply increased. According to the savings glut theory, real interest rates should have decreased, and investment should have increased.

The savings glut thesis has however been criticized and globally refuted.

For example [Jörg Bibow](#) of the Levy Institute has criticized the saving glut hypothesis on the basis of the problems associated with the underlying loanable funds theory which wrongly assumes that saving finances investment. He logically challenges the idea that an excess saving of emerging countries would have been already there, waiting to be collected by the authorities through national debt issuance, and then invested in US securities. He disagrees with the idea that emerging countries governments would have acted as intermediaries to channel their saving to advanced countries through the financial markets. For him, it is not an excess of saving of emerging markets which had depressed interest rates on an imaginary classical capital market.

Jörg Bibow proposes a convincing alternative explanation of the decrease of real interest rates in the United States and elsewhere between the Asian crisis and the subprime crisis. He points out that the competitiveness policy conducted by emerging countries has depressed the demand for US goods and services. It caused a downward pressure on prices and wages in the USA. The policy of emerging countries induced deflationary pressures in the USA. In response to these deflation risks the Federal Reserve was compelled to decrease short term interest rates. Since the market expected that this decrease of short term interest rates would last, nominal and real long term interest rates also decreased in the USA. To avoid an appreciation of their currencies against the dollar, the central banks of other advanced countries were compelled to also decrease their interest rates.

This refutation of the saving glut thesis is confirmed by Claudio [Borio](#) and Piti Disyatat at the Bank for International Settlements. For them it is wrong to claim that net capital flows of current account surplus countries to deficit advanced countries had funded the credit boom and risk taking. It is an interpretation inspired by the theory of loanable funds that has been refuted. It is an accounting identity that net capital outflows to the rest of the world are the exact counterpart of a current account surplus. But what matters is the detail of gross capital flows. Even with a current account surplus, gross capital flows can go in both directions. Before the subprime crisis there were gross capital flows from the USA and other advanced countries towards the emerging countries, despite their trade surplus. The counterpart was an increase of foreign reserves that needed to be invested, leading to gross capital flows towards advanced countries.

The wrong saving glut thesis would confuse saving and financing. The financing of investment is assured by the credit supply which is independent of any preexisting saving. The analysis of the BIS thus refutes the thesis that an increase of desired saving relative to desired investment in emerging surplus countries would have depressed interest rates in advanced countries, especially in the US. At best the interaction between desired saving and desired investment may be considered as determining a natural rate of interest. It is the unobserved interest rate that would be necessary to provide equilibrium of the market of goods and services, to equalize desired saving and desired investment. But the natural rate is different from the observed market interest rate, which is determined by the monetary policy rate, expectations about future policy rates, and risk premia. The

market rate is only indirectly affected by saving and investment. For the BIS, the excessive expansion of credit and asset

prices before the financial crisis was an indicator that the market interest rate determined by monetary policy was much lower than the natural rate. Therefore they claim that big official inflows of funds into US government bonds may have contributed at the margin to lower the long term interest rates, but they are not the principal determinants. The saving glut thesis overestimates the role of current account imbalances in the financial crisis. The real cause of the crisis was an excessively accommodative monetary policy in advanced countries. This is close to the explanation of Jeorg Bibow.

Despite these refutations of the saving glut interpretation of recent macroeconomic evolutions, The ECB uses it as a theoretical justification to support its policy.

Vitor Constàncio, vice president of the ECB, recently explained in a [speech](#) how the “savings glut” interpretation could explain the convergence of western interest rates to the lower bound

*«Until 2008, the imbalances resulting from **excessive savings in search of safe assets** could be equilibrated by the decrease of interest rates. After the crisis, the decrease of yields was accentuated by the reduction of the stock of assets resulting from weaker private issuers and from weaker European sovereigns. **Interest rates were therefore pushed down** to the LB and the phenomenon propagated to other countries through the financial markets.»*

This view is confirmed by an [opinion](#) piece by Benoît Cœuré, Member of the Executive Board of the ECB, on May 1, 2016

*«The euro area, for example, generates excess savings of over 3% of its GDP. In conjunction with other factors, **this export of savings adds at a global level to the downward pressure on interest rates**. In other words, low interest rates are a symptom of macroeconomic interdependencies and measures which go well beyond monetary policy.»*

The ECB combines this reasoning of the saving glut theory with various aspects of the secular stagnation thesis which argues that investment would be insufficient because its rate of return has structurally decreased, and according to which the potential rate of growth of advanced economies would have decreased.

The concept of secular stagnation had been introduced by Alvin Hansen in 1939. He thought that a decrease of population growth and of the rate of increase of productivity could reduce the profitability of investment. As a consequence investment would be lower than what would be required to assure full employment. He claimed that investment would also be insufficient when agents have low expectations of future aggregate demand and when governments conduct a restrictive fiscal policy.

Recently Lawrence Summers [came back](#) with this idea of secular stagnation, with a wider set of possible causes. In addition to decelerating population growth and a lower rate of increase of productivity that depress consumption and investment, Hansen also mentions income inequality which depresses expected demand. Indeed rich agents have a lower propensity to consume than poor agents. Lawrence Summers essentially deals with a problem of persistent insufficient demand that causes a gap between realized growth and potential growth.

Robert Gordon [provides](#) another interpretation of secular stagnation, where it is potential growth that is decelerating. There are several reasons that can explain this decrease of potential growth,

according to him. A reason would be the deceleration of the growth of active population. He also claims that a dysfunctional educational system in the United States is decelerating the growth of human capital. But the most important reason would be less innovations and a lower rate of increase of productivity. He claims that the benefit of the most important innovations has been gained in the past and that new innovations are going to have less impact on the rate of growth of productivity.

The thesis of secular stagnation has been heavily criticized in economics.

The thesis of secular stagnation implies that the real return of capital would have decreased over time. [Recent research](#) at the Federal Reserve Bank of Saint Louis has however shown that, contrary to what the secular stagnation theory suggests, **the real rate of return on capital has not decreased over time!** What has decreased is the real interest rate on risk free government bonds, [but it is quite different](#) from the real rate of return on investment.

Paul Krugman has another interpretation of the crisis and the current deflationary risks. He claims that the main cause is insufficient demand due to an excessively high real interest rate. Paul Krugman claims that central banks were excessively successful in decreasing and anchoring inflation expectations in the past from 1979 to 1984. Central banks have convinced the public that they would keep inflation below 2%. The problem is that, in order to achieve full employment, the real interest rate must remain below 2% in normal conditions but may need to be much lower and even negative when the economy is threatened by adverse shocks. The real interest rate is the difference between the nominal interest rate and expected inflation. To restore full employment in crisis time, the real interest rate must become sufficiently negative. But if inflation expectations are very low, it is impossible to obtain a sufficiently negative real interest rate with a strictly positive nominal interest rate. The lower bound of nominal interest rate may preclude the achievement of a sufficiently negative real interest rate to restore full employment. It is how Krugman defines a liquidity trap, which is different from the definition of Hicks and Hansen in their interpretation of Keynes. Conventional monetary policy is then ineffective to restore full employment. Krugman suggests to conduct a very expansionary fiscal policy to reach full employment in such conditions. Another policy suggested by Krugman is a massive quantitative easing by central banks, in order to push expected inflation very high, while keeping nominal interest rates very low. This way the real interest rate can sufficiently decrease.

Kenneth Rogoff, at Harvard University, [claims that](#), contrary to the thesis of secular stagnation, the causes of the current relatively slow growth and deflationary pressures are the accumulation of excessive debts in the past. When part of the debts are excessively risky, markets react. The interest rates on risky debt are high while those of the risk free debts become very low. Long term interest rates on many public bonds are effectively very low, but Kenneth Rogoff thinks that they are simply caused by a past accumulation of debts, part of which was excessively risky until the "subprime" crisis. Kenneth Rogoff thinks that deleveraging must occur, which temporarily depresses the activity. Later the situation normalizes, and interest rates can go up again. Kenneth Rogoff suggests to improve prudential regulation and to invest in infrastructures.

The idea that innovations and productivity growth would be decelerating is also challenged. It has been shown that part of the benefits of the new information technologies are mis measured by the national accounts.

Despite these refutations the ECB regularly defends its policy by using several arguments from the secular stagnation thesis, for example the idea that investment is currently low because its real rate of return has decreased, and that it requires a lower real interest rate.

Mario Draghi reaffirmed again this point of view during [a speech](#) on May 2, 2016, by combining it with features of the saving glut thesis

*« There is a temptation to conclude that since very **low rates** generate these challenges, they are the problem. But they **are not the problem. They are the symptom of an underlying problem, which is insufficient investment demand, across the world, to absorb all the savings** available in the economy. »*

*« It is this phenomenon – **the global excess of savings over profitable investments** – that is **driving interest rates down to very low levels**. And so the right way to address the challenges raised by low rates is not to try and suppress the symptoms, but to address the underlying cause. »*

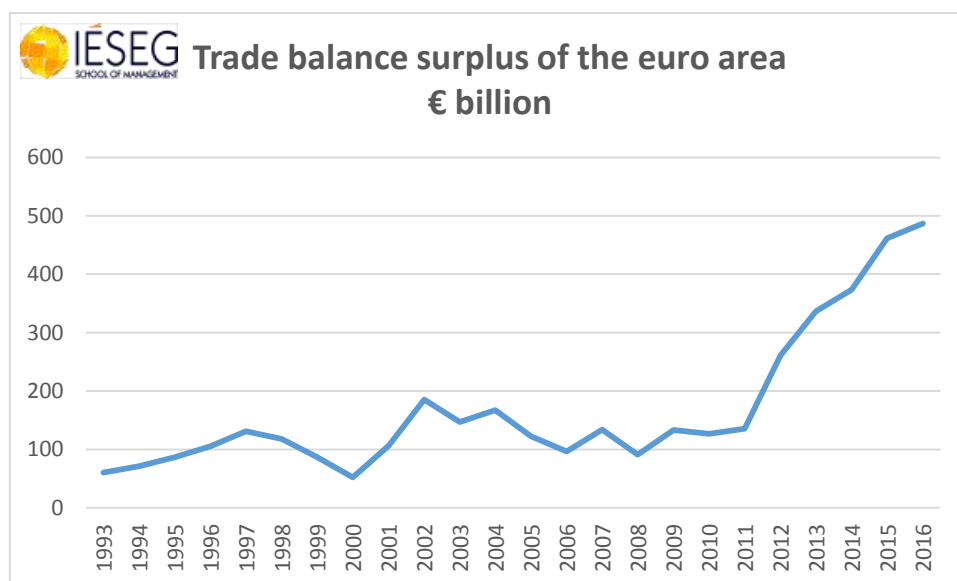
In this [speech](#) Mario Draghi observes that the decrease of nominal interest rates since the 1980s is of course related to the success of central banks in overcoming inflation, but that it is also caused by a decrease in real interest rates. He interprets this decrease of real interest rates as the consequence of the combination of a downward shift of investment and an upward shift of saving.

*«The drivers behind this have been, among others, **rising net savings** as **ageing populations** plan for retirement, **relatively less public capital expenditure** in a context of high public indebtedness, and a **slowdown in productivity growth reducing the profitability of investment**. »*

*«If central banks did not do this – i.e. if we kept interest rates too high relative to their real levels – **investing would be unattractive, because the cost of borrowing would exceed the return**. So the economy would stay stuck in recession. Conversely, by holding market rates below the real rate of return, we encourage the investment and consumption that is needed to bring the economy back to potential. That in turn creates the conditions for monetary policy to eventually normalise. »*

It is thus clear that Mario Draghi reasons in terms of the loanable funds theory that has however been largely refuted in economics, and also in terms of both the very controversial savings glut and secular stagnation interpretations of the reality.

A distinctive feature of this way of thinking is to consider that the huge current account surplus of the Euro area, a big part of which is located in Germany, represents a kind of excess saving, the flow of which is depressing nominal and real interest rates.

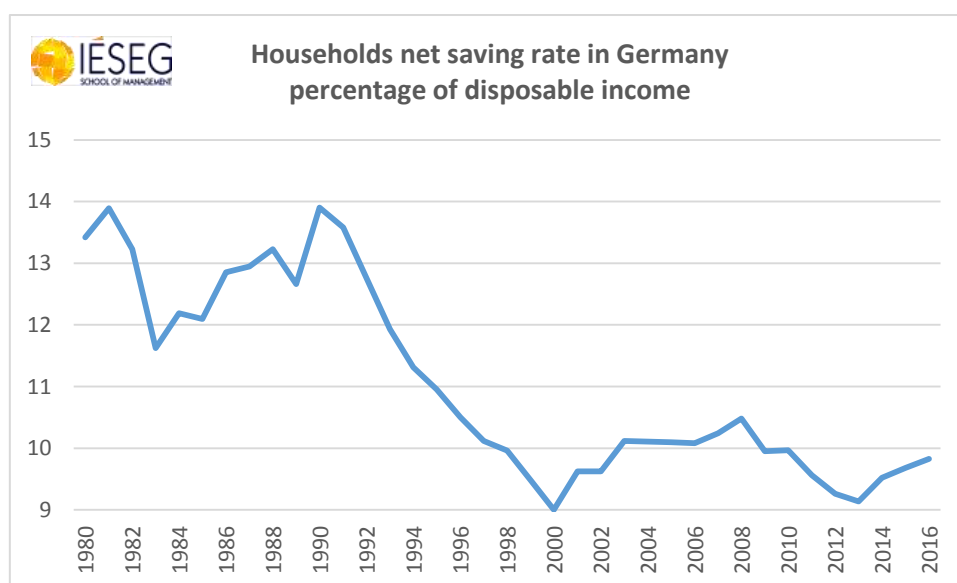


Data source AMECO

This reasoning interprets the net exports of goods and services by the euro area as a phenomenon of « excess savings ». For a given country or set of countries, a goods and services trade surplus indeed implies that private saving is higher than the sum of total investment and a measure of public deficit¹. This is mechanically a consequence of an accounting identity. But it does not automatically mean that the saving rate of the private sector is « excessive » by any meaningful criteria. In addition the trade balances of the different countries cancel out at the world level. An overall trade surplus in some regions of the world implies that there are compensating trade deficits elsewhere. Therefore there are no such « excess savings », defined from accounting identities, at the world level. With rather well integrated international capital markets, there are thus no reasons that a trade surplus in the euro area and some other parts of the world implies a global decrease of interest rates. There are no reasons to believe that interest rates should be necessarily higher if all the countries of the world had a perfectly balanced external trade, with exports equal to imports. What we mean here is that **it is impossible to infer from observed trade balances whether there is some excessive saving behaviour in any meaningful sense, that would be responsible of low interest rates at equilibrium.**

Observing the temporal evolution of private saving rates may be a better idea. In the case of Germany, which is certainly the most « guilty» country, using the above line of reasoning, for the trade surplus of the euro area, the saving rate of households and NPISH has not been particularly high recently as compared to the past. It is even the contrary!

¹ To simplify, the public deficit is here the excess of general government expenses over net income tax receipts. Net income taxes also include paid social security contributions minus benefits.



Data source AMECO

A similar pattern is observed concerning the gross saving rate of German households.

It must be pointed out that the ECB is often using arguments from different economic theses. For example Vítor Constâncio, in a [speech](#) on May 9, uses the arguments of Kenneth Rogoff:

« While domestic demand in the euro area is rising, it still shows a weakness that relates in part to the fact that the euro area is coming out of a balance sheet recession, where economic activity is constrained by the need for governments, firms and households to deleverage.»

«This phenomenon of economic growth remaining weak in the aftermath of banking crises has been well documented.»

But in the same speech he also uses typical arguments from the secular stagnation thesis. There would be a decrease of the long term growth potential. A set of secular forces would have shifted down the potential growth rate of the world economy. The speech refers to [Robert Gordon](#) about a supposed slowdown of the pace of innovation and thus of productivity growth in advanced economies and to [Charles Goodhart](#) about less strongly increasing labour supply. The implications on monetary policy show that the ECB gives credit to the thesis that the return on investment would have decreased so that a lower or negative real interest rate is needed

«The ECB's monetary measures since the summer of 2014 have been geared at easing overall financial conditions while at the same time restoring specific market segments and the bank lending channel. The latter is a particularly important channel for transmitting monetary impulses to euro area firms and households. In doing so, **this has greatly reduced the cost of capital for firms, which is a key determinant underpinning the investment decisions of firms.** By reducing the real cost of capital, the hurdle for generating a positive net return on investments declines and consequently, this spurs economic growth and subsequent investment with a virtuous circle emerging.»

The reasoning is explicitly based on the secular stagnation thesis

« a lower potential growth rate reduces the equilibrium interest rate, that is, the interest rate where resources are fully employed in the economy and inflation is stable. Monetary policy strives to engineer its policy rate as close as possible to the equilibrium rate in order to steer output back towards its potential and thereby, close the output gap and keep inflation at the central bank's desired level. However, as the equilibrium rate falls, the central bank faces challenges coming from the lower bound on nominal interest rates as it attempts to reduce its policy rates to a low enough level. In addition, it may be forced to keep rates at low levels for long in order to provide the required stimulus to the economy.»

The job of central banks would thus be to set interest rates at a natural or equilibrium level dictated by structural factors. This idea has also been expressed by Mario Draghi in his [speech](#) of May 2

« While structural factors drive long-term real rates, monetary policy influences interest rates over the short-term. But it does so only at the margin: central banks steer market rates relative to the level dictated by those structural forces. »

« if we kept interest rates too high relative to their real levels – investing would be unattractive, because the cost of borrowing would exceed the return. So the economy would stay stuck in recession. »

In terms of economic reasoning, the ECB refers once again to the classical theory of loanable funds, a Wicksellian view.

It is surprising that the ECB seems to be certain that decreasing the interest rate can increase investment. Indeed econometric studies generally experience difficulties in finding any impact of interest rates on investment. It is well known that investments are primarily driven by the expectations about future demand rather than borrowing costs.

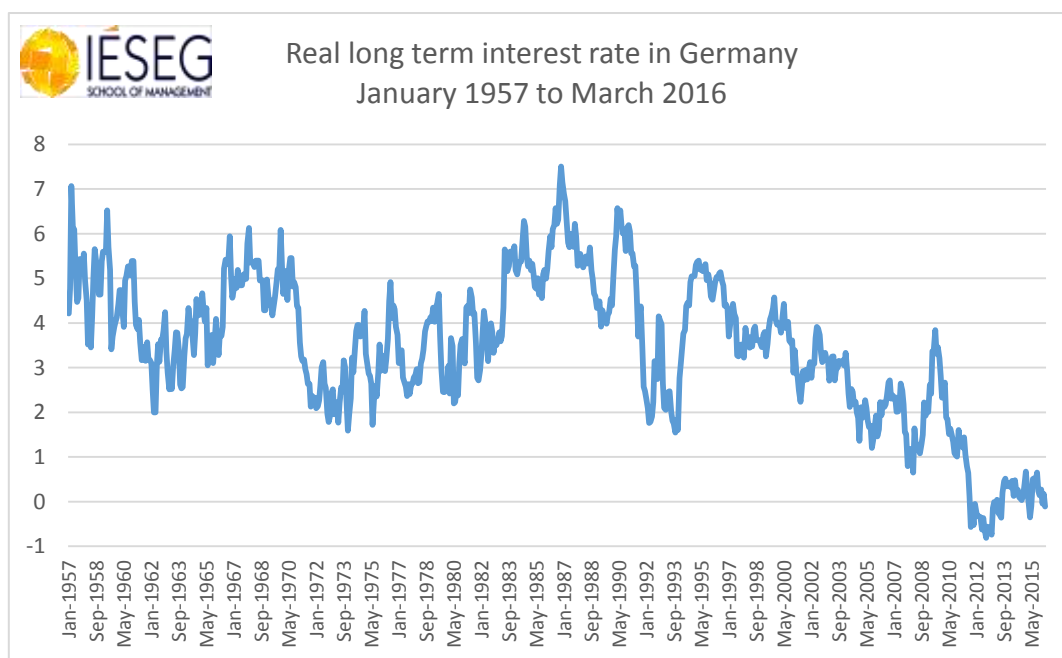
B) Current levels of real interest rates would be far from being abnormal in a historical perspective

Another defense of the ECB is to claim that current real interest rates are not abnormally low as compared to past experience

Mario Draghi claimed that during the [press conference](#) of April 21, 2016:

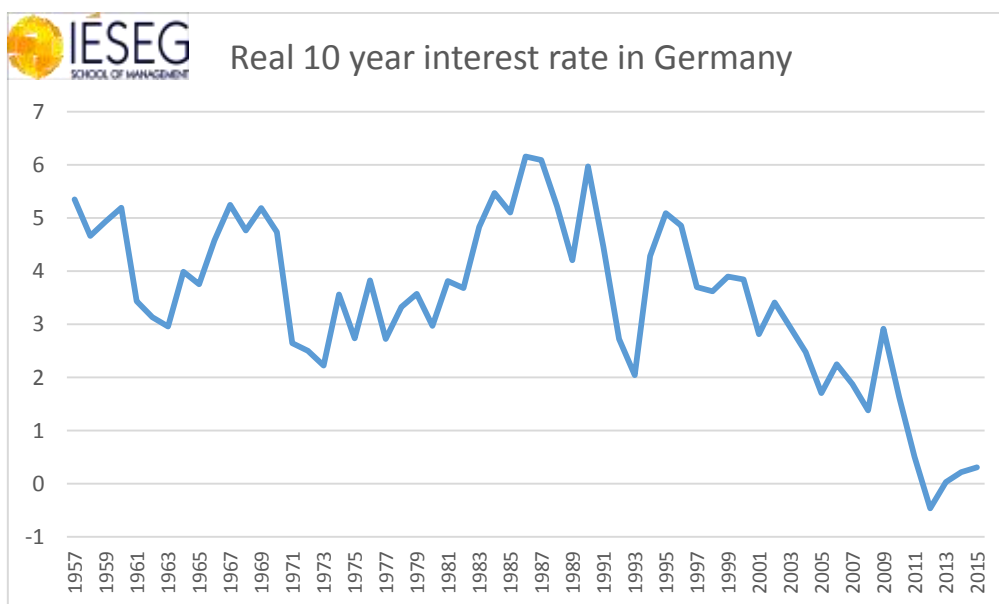
« we also need to look at real rates, not only monetary nominal rates, and if we look at real rates, one will see that the difference is much less dramatic. In fact, real rates today are higher than they were about 20, 30 years ago. But I am aware that to explain real rates to savers may be difficult. That's your job, I would say. »

However data do not seem to support this claim. Using OECD data for the long term nominal interest rate and the inflation rate, it is easy to compute the real interest rate in Germany. It is clear that it is much lower now than at any other period in the past since 1957. In particular the real interest rate in Germany is much lower than 20 or 30 years ago.



Data source OECD

This evolution can also be presented in yearly averages:



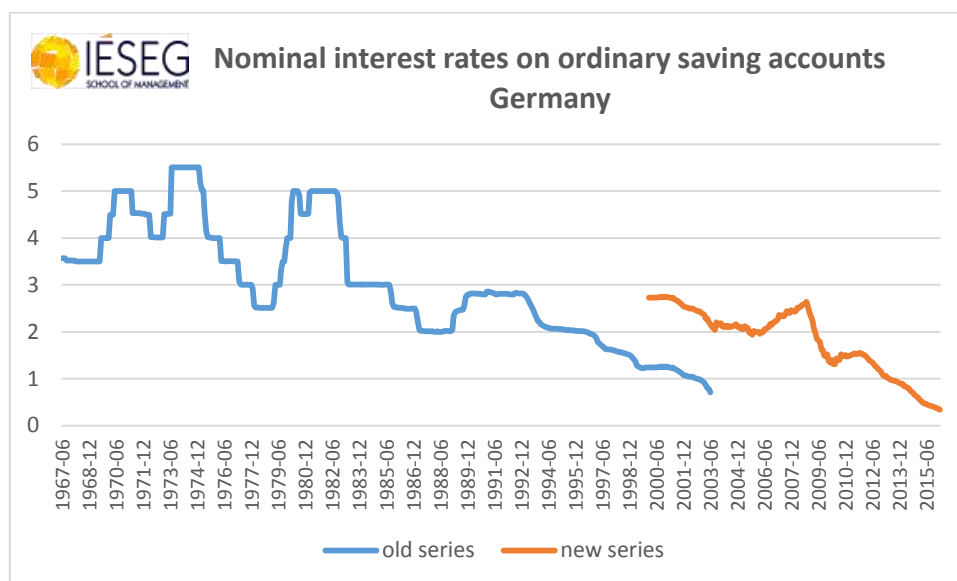
Source of the data OECD

Now the above graph is about public bonds real returns at maturities close to 10 years. Did the ECB refer to other types of interest rate and would it be different for them ? In his interview with Bild on April 27, 2016, Mario Draghi explicitly mentions that he refers to the interest rates on saving accounts in German banks:

*« Remember, what counts is what you earn on savings in real terms, i.e. interest minus inflation. **This is higher today than it was in the 1990s.** At that time you might have had a higher interest rate on your Sparbuch, but we often had an inflation rate that was higher still. So you could buy less with the money you received. »*

For recent years the average interest rate on ordinary saving accounts can be measured by the series of effective interest rates of German banks, new business, households' deposits redeemable at notice of up to 3 months, with label SUD105. This series starts in January 2000, including estimated values by the Bundesbank for the beginning of the sample. Prior to that it is necessary to rely on the Bundesbank's survey of lending and deposit rates. The best choice is the average interest rate on saving deposits with minimum rates of return, with agreed notice of 3 months with label SU0022

There is an overlap of periods between these old and new series, which allows to observe that the scope of what they measure is different. During the overlap periods, the new series is much higher than the old series.



Source of the data Bundesbank

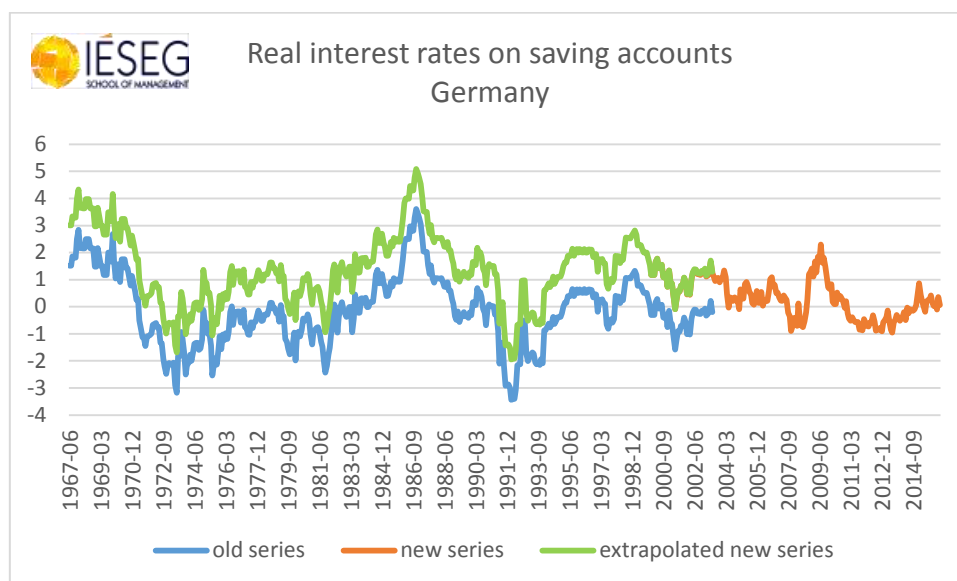
This is due to a difference of definitions which is explained on this [explanatory](#) notice of the Bundesbank.

«The inclusion of a wider range of different types of savings deposits– including instruments bearing higher rates of interest such as growth savings accounts, indexed-linked savings or volume-dependent graduated interest rate agreements –had pushed the average interest rate in the MFI interest rate statistics (SUD105) 1½ percentage points higher during the overlapping period from January to June 2003 than that on the standard savings deposit component (SU0022) in the Bundesbank's former statistics on lending and deposit rates. In addition, the category collected at the end of the month (SUD105) contained not only pure new business but also “old contracts” from past periods when interest rates were higher. »

It is thus clear that the old series underestimates the true interest rate on saving accounts.

A crude measure of a real interest rate can be obtained by subtracting the observed inflation rate from the nominal interest rate for each period, for the old and the new series. Of course a true real interest rate would require to use expected future inflation rather than observed inflation. However long time series of expected inflation, obtained from surveys or computed from financial derivatives, are lacking. A crudely corrected new series has been computed for the nominal interest rate, and has

been used to compute a real interest rate. The true real interest rate on saving deposits may thus have been located between the old series and the extrapolated new series.



Source of the data Bundesbank

Indeed real interest rates have been lower than their current level in the early 1990s but it was in exceptional and totally different circumstances. Reunification of Germany had caused an overheating of the economy and an unexpected surge of inflation. Since this surge of inflation had been unexpected, nominal interest rates on saving accounts at the banks had lagged behind. Nominal interest rates on saving deposit accounts only adjusted with a lag to the surge of inflation. Therefore, for a short lapse of time, real interest rates on saving accounts became extremely negative. It is interesting to point out that a similar phenomenon had occurred in the mid-1970s after the first oil shock, and a few years later after the second oil shock. Each time the surge of inflation had been unexpected. Therefore nominal interest rates had reacted with a lag, and the resulting real interest rate had been temporarily negative.

These situations were quite different from now, because these temporary negative real interest rates on saving accounts occurred despite the Bundesbank was increasing policy rates to fight inflationary pressures. It was simply due to an excessively slow adjustment of the rates on saving accounts by the banks. Currently the decrease of nominal and real interest rates is due to a deliberate action of the ECB in that direction.

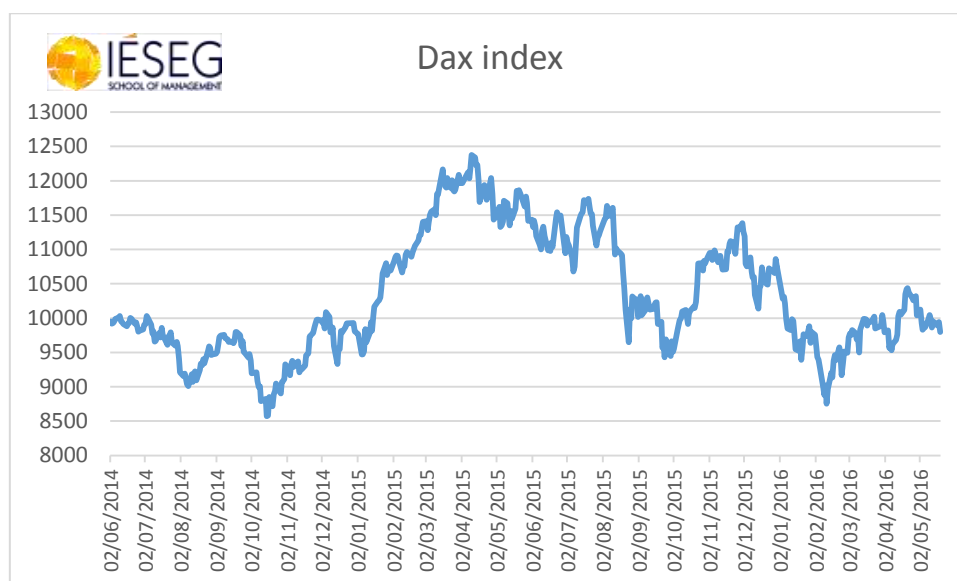
Another difference is that real returns on public bonds remained positive. Besides saving accounts, there existed other fixed income alternatives where it was possible to invest, using collective funds for example. Now even the nominal interest rates on risk free bonds are negative for many maturities. It is true that households having invested in collective fund in bonds a few years ago currently benefit from big capital gains, but investing now in such funds would be very risky.

C) German households could still earn a good return on their saving if they bought equities

Mario Draghi, in a [speech](#) of May 2, claimed that German savers should better diversify their investments and buy equities.

« For a start, savers can still earn satisfactory rates of return from diversifying their assets, even when interest rates on deposit and savings accounts are very low. For example, US households allocate about a third of their financial assets to equities, whereas the equivalent figure for French and Italian households is about one fifth, and for German households only one tenth. By contrast, German households keep almost 40% of their assets in cash and deposits, and French and Italian households approximately 30%. The equivalent number is less than 15% for US households.»

This advice is surprising. Equity are risky assets that retirees prefer to avoid since they need a relatively constant and certain income. Anyway, investing in equities is far from having yielded a high return since the beginning of negative rates at mid 2014 !



Source of the financial data Yahoo Finance

Of course everything depends on the time span which is considered. Investors having bought, 5 years ago, a fund tracking the Dax index, would have earned an average yearly return of 5.8% if they sold it now. But they should have accepted the high volatility and associated risk. The problem is that it does not fit the need of small savers who need a regular constant income.

D) German households are also borrowers benefiting from low rates

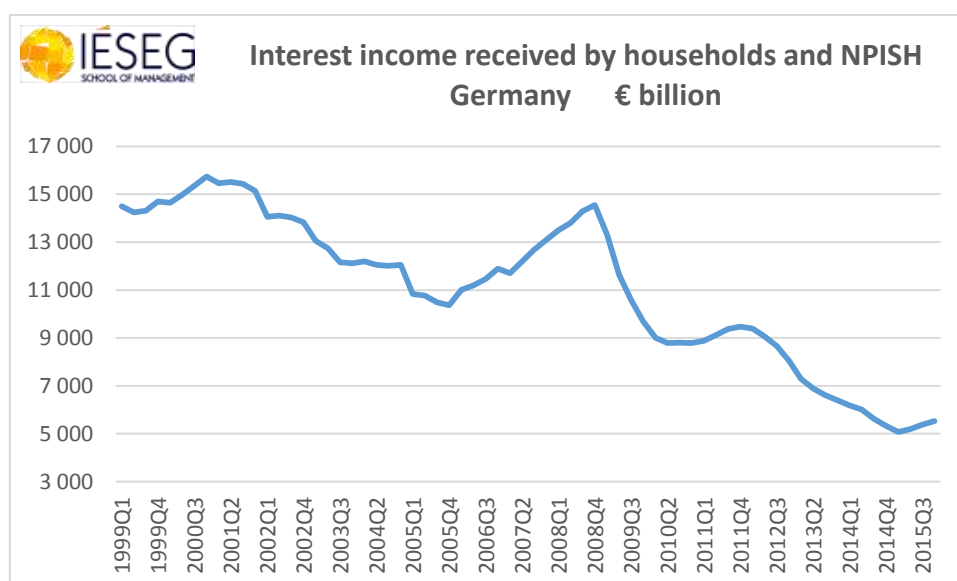
Mario Draghi raised this issue in an [interview](#) with Bild

«Besides, many people benefit from low interest rates as they are also homebuyers, taxpayers, entrepreneurs and workers whose companies are benefiting.»

This point was stressed by [Benoît Coeuré](#) in a piece of opinion on May 1.

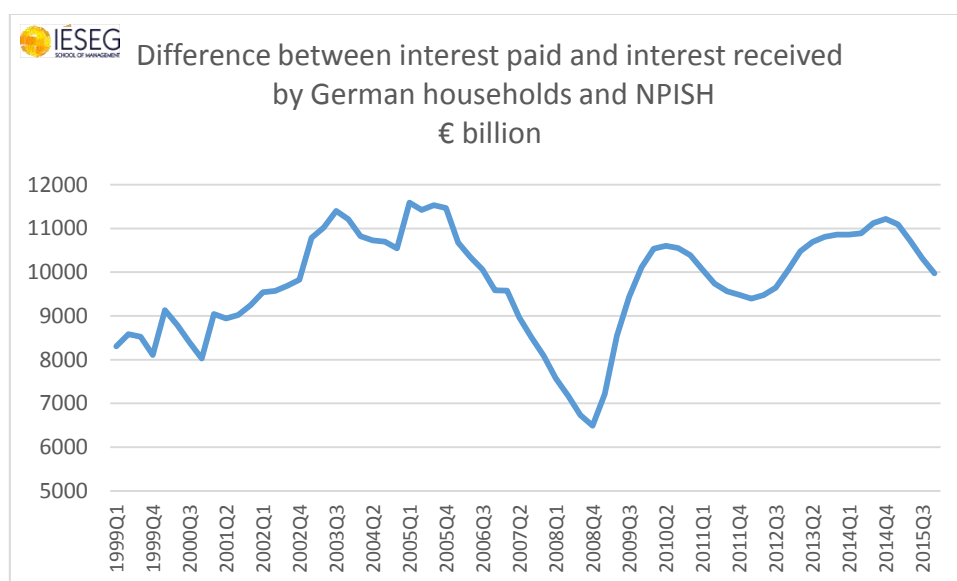
«But people are not just savers – they are also employees, taxpayers and borrowers, as such benefiting from the low level of interest rates.»

The decrease of interest income by German households, including non-profit institutions serving households, is impressive since the beginning of the financial crisis



Data source Eurostat

However the flow of interests paid by German households has also decreased, because they could borrow at much lower rates. Structurally the amount of interests paid by households is higher than the amount of interests received by households in Germany. It is thus interesting to examine how the difference of the difference between interests paid and interests received has reacted to monetary policy.



Data source Eurostat

Obviously monetary policy measures since 2010 seem to be roughly neutral concerning the global situation of households. The situation did even improve recently. The decrease of interest received is compensated by a decrease in interests paid.

Of course those who borrow and pay interest are different from those who save and earn interest. The monetary policy of the ECB has thus caused a huge redistribution of income between the savers and the borrowers.

Of course the data series before FISIM allocation are selected.

Other remarks

Achieving an extremely low level of interest rates in the euro area is a deliberate policy of the ECB.

The ECB regularly explains that its strategy is to improve financial and borrowing conditions, hoping that it will stimulate investment and consumption, reducing the output gap and triggering higher inflation. According to the ECB, quantitative easing and negative interest rates are necessary elements of the package of policy measures that are used to achieve these objectives.

The quantitative easing policy of the ECB, or asset purchase programme, is supposed to work by the portfolio rebalancing channel. Depressing the interest rates of sovereign bonds is useful because it compels investors to buy riskier assets issued by the private sector. The prices of these riskier assets should thus increase and their rate of return should decrease. This way the QE is supposed to lower the funding cost of the private sector. In his [speech](#) Peter Praet describes it the following way

«The primary instrument in this regard is the APP, which compresses the term premia which are incorporated in risk-free interest rates and thereby encourages investors to move up in the maturity and risk ladder and shift to other, non-targeted asset classes.

The quantitative easing policy increases the liquidity holdings of the sellers of the bonds that are purchased by the Eurosystem. These sellers can be banks, insurance companies and other investors, inside or outside the euro area. In general these purchases mechanically increase the excess reserves of the banks of the euro area at the Eurosystem. They simultaneously increase the deposits accounts of the sellers. The negative interest rates on the excess reserves of the banks lead to a decrease of interest rates on deposits on bank accounts, which encourage their holders to buy other assets. This is what Peter Praet explains in the [speech](#)

«The negative DFR in turn discourages selling agents from hoarding the additional liquidity, speeding up the process of asset reallocation and reinforcing the downside pressure on the long end of the term structure of interest rates.

Much of the monetary policy of the ECB is dictated by the situation in peripheral countries of the euro area rather than in Germany. But, according the ECB, recent monetary policy have also stimulated loans in the core of the euro area. According to a [speech](#) of Peter Praet, there is evidence that the negative deposit facility rate has empowered the quantitative easing, that is the asset purchase programme

« ECB staff research finds that bank balance sheet reactions to holdings of excess liquidity have changed as a result of this policy: for example, banks in less vulnerable euro area countries were found to have granted more loans to the real economy than would have been the case without negative rates.»

This policy, according to him, would also have reduced fragmentation of the sovereign bonds market in the euro area

*« In addition, banks with large holdings of excess liquidity, in particular in less-vulnerable Member States, were found to have rebalanced significantly more towards non-domestic euro area government bonds than absent the negative DFR. This behaviour is likely to have contributed to the fall a **reduction in fragmentation** and a more uniform transmission of monetary policy, in the past year or so. »*

Evidence shows that the exceptional monetary policy decisions of the ECB have improved financial and borrowing conditions in the euro area, especially in the peripheral countries with distressed banks. However the effectiveness of this policy to really increase growth and inflation is uncertain. The ECB however claims that, without the exceptional policy measures, growth and inflation would be much lower. It is for example what Vitor Constancio claimed in a [speech](#)

«Applying a large and diverse set of models to account for the uncertainties surrounding such analysis, ECB staff estimate a substantial effect of our measures on growth and inflation. In the absence of these measures, inflation would have been negative in 2015 and would be projected to remain in negative territory also this year. Regarding growth, two thirds of one percent of the registered growth in the past two years can be attributed to our monetary policy. »

It is also what is claimed by Vítor Constâncio, in a speech of May 9

« Indeed, the only positive contribution to euro area real GDP growth in 2015 came from domestic demand, which in itself highlights how important our monetary policy measures have been in supporting the recovery of key euro area spending components. »

« ECB staff estimates suggest that, had there been no asset purchase programme (including the recalibration of December 2015 but not including the March 2016 package as it is currently assessed by staff in the context of the projection exercise that will become available in June), inflation would have been negative in 2015. ECB assessments also suggest that the asset purchase programme (including the recalibration of December 2015, but not including the March 2016 package as it is currently assessed by staff in the context of the projection exercise that will become available in June) will contribute to raising the GDP of the euro area by around 1.6% in the period 2015-18. »

In the absence of detailed published studies, including the methodology, it is of course difficult to assess the quality of these results. Econometric models are extremely sensitive to the underlying assumptions.

The ECB also claims that the profitability of banks has well resisted to the negative interest rates on excess reserves. It is for example what Benoît Coeuré clearly explained in a [speech](#) on May 3

« banks' profitability has actually improved when you look at the overall impact of our monetary policy, thanks to a combination of lower funding costs, increased lending volumes and lower loan-loss provisions, which dominates by far the direct cost of negative rates. »

Conclusion

There are currently debates about the appropriateness of the current quantitative easing and negative interest rate policy of the ECB against deflationary risks in the euro area.

It must be widely recognized that the ECB has responded extremely well to the challenges of the subprime crisis and the sovereign debt crisis. The task was difficult in view of the initial flaws in the design of the monetary union. The euro had indeed been irresponsibly launched without the features that matter most for the functioning of a monetary union, like fully harmonized bank regulation, a mutualisation of the deposit insurance scheme and at least partial fiscal federalism. Decisions of the ECB were very effective.

After the collapse of Lehman Brothers the ECB provided abundant liquidity to banks to avoid a generalized credit crunch. A whole set of measures were decided, among which sharp decreases of policy interest rates, that were absolutely necessary to stabilize the banking system.

Later, when interest rates on public bonds of distressed peripheral countries rocketed, the ECB saved the euro area. This crisis was partly self-inflicted for several reasons. It was the consequence of another flaw in the design of the monetary union. Normally a country cannot default on its debt issued in its own currency, because there is the ultimate possibility for the national central bank to lend to the government. The explicit legal prohibition of any monetization of public debts in the euro area however implies that member countries may really default on their debt in euros! Article 123 prohibits any purchase of public bonds on the primary market by the ECB. A regulation of the Council adds that purchases on the secondary market may not circumvent the objectives of this article. It is thus as if the euro was a foreign currency for all the members of the monetary union. Member countries are indebted in a foreign currency that they may not issue to assure the service of their bonds in crisis times. It is an invitation to speculation. Of course everybody agrees that governments should avoid using the possibility to monetize their debt in practice, because of the risks of uncontrolled rising inflation. But the legal possibility to monetize the debt is sufficient to discourage speculation, without having to effectively monetize! It is what the ECB admitted in 2012 when it launched the OMT principle. The ECB thus implicitly recognized that, like any other monetary order elsewhere, the euro area needed an ultimate lender to governments. Even if it was legally subject to criticism, it was absolutely required to avoid a disorderly breakdown of the euro area and the resulting financial turmoil. The consequences of this crisis were however aggravated by other problems on the monetary union. Without explicit fiscal federalism, the euro area was compelled to overly rely on austerity programmes to try to decrease the public deficit in distressed countries. It caused a second recession and the ECB had to further cut interest rates.

All member countries should thus be grateful to the ECB for having acted most responsibly and efficiently in reaction to the successive crises.

The present situation is different because there are debates about the causes of the deflationary risks and the effectiveness of monetary policy to tackle them.

There are good reasons to think that the current deflationary pressures are caused by factors that are outside the control of the ECB.

Overall exports of the euro area are negatively affected by the deceleration of growth in emerging countries, essentially due to structural problems. The overall demand for products of the euro area is thus less dynamic, which relatively depresses wages and prices in member countries. Oil and commodity prices have much decreased, reducing the production and transport costs, and thus depressing prices in the euro area. The decrease of oil prices is due to the increase of supply in the US and decelerating demand of emerging countries.

Globalisation implies that advanced countries are in competition with low wage countries, the output prices of which are also kept low thanks to less demanding environment and labour protection norms. This competition heavily depresses the growth of prices and wages in the euro area. The European Commission urges member countries to implement structural reforms to further liberalize the labour market and the markets for goods and services, to enhance competition. While the ECB tries to fight inflation, the European Commission thus encourages policy measures that will depress wages and prices, at least in the short and medium term. The benefits of such reforms in terms of growth, which could then have a reflationary effect, are only expected in the long term. Before that, they are deflationary.

The ECB seems to believe that boosting domestic demand with aggressive monetary policy can be sufficient to compensate for all these deflationary effects. This is however very uncertain.

While there is an overall consensus to observe that domestic demand is insufficient in the euro area, there is less unanimity about the capacity of the ECB to address this issue. The ECB claims that it is possible by sufficiently lowering the long term real interest rates, even to negative values. The ECB relies on the unconvincing saving glut thesis to claim that the real equilibrium interest rate would be negative. There are however alternative and convincing analyses that challenge this saving glut thesis. The ECB also relies on the secular stagnation thesis to claim that the real return on investment would have structurally decreased, so that very low or even negative real interest rates are necessary to induce companies to increase investment spending. Once again the secular stagnation thesis is challenged and refuted by other analyses.

It is also very uncertain that lowering the borrowing cost is sufficient to stimulate investment spending. Indeed most empirical investigation results show that investment is rather independent of the interest rate, but is rather driven by the degree of capacity utilization and expectations of future demand.

The paradox is that the European law assigns the ECB to achieve price stability, as if it was certain that a central bank can control the price dynamics in any circumstances. The legal mandate of the ECB implicitly assumes that there are scientific certainties that a central bank has always the possibility to set the realised inflation rate at a desired value in a relatively short delay. In reality this question is debated, without any consensus. The problem is that the ECB is compelled to maintain its credibility, and thus to hide uncertainties or doubts about its ability to achieve its mandate. Because of its legal mandate, the ECB is also compelled to engage in any desperate action possible to show the public that there are actions to reach the assigned objective of price stability.

These debates illustrate the insufficiency of the current scientific knowledge in economics on which central banks may rely to design their monetary policy.