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No. 26

Monetary Policy Reform in a World of Central Banks

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Monetary Policy Reform in a World of Central Banks*

Abstract

The paper identifies based on the monetary overinvestment theories by Wicksell (1898), Mises (1912) and Hayek (1929) monetary policy mistakes in large industrial countries issuing international currencies. It is argued that a neglect towards monetary policy reform in a world dominated by financial markets has led to the erosion of the allocation and signaling function of the interest rate, which has triggered an excessive rise of the government debt and structural distortions in the world economy. The backlash of high government debt levels on monetary policy making is argued to have led to a hysteresis of the liquidity trap. In this context, monetary reform is discussed with respect to the exit from low interest rate and high debt policies, an adaption of monetary policy rules to financial market dominated economic development, and the displacement of the prevalent world monetary system. Enhanced competition between dollar and euro as international currencies moderated by East Asia is proposed to constitute a more stable international monetary system.

JEL: E42, E58, F33, F44.

Keywords: Economic Instability, Credit Cycles, Monetary Policy, Hayek, Mises, Monetary Policy Rules, Monetary Policy Reform, Currency Competition.

* I thank Andreas Hoffmann for his valuable support. The paper is based on our comprehensive common work on boom and crisis in the context of the monetary overinvestment theories.

„The wavelike movement effecting the economic system, the recurrence of periods of boom which are followed by periods of depression is the unavoidable outcome of the attempts, repeated again and again, to lower the gross market rate of interest by means of credit expansion.“

(Ludwig von Mises 1949: 572)

„The desirable behavior of the total quantity of money [...] can never legitimately be applied to the situation of a singly country which is part of an international economic system, and that any attempt to do so is likely in the long run and for the world as a whole to be an additional source of instability.“

(Friedrich August von Hayek 1937: 93)

1 Introduction

Since the mid 1980s the global monetary system has suffered from a swelling wave of wandering boom-and-bust cycles, which has cumulated into a series of crisis events and excessive monetary expansion (Hoffmann and Schnabl 2008, 2011a). Whereas monetary expansion has originated in the large industrial countries with independent central banks, boom-and-bust periods have emerged both in the industrialized and emerging world. Monetary policy rates in the industrialized countries have approached the zero bound and rising government debt levels herald further pressure on central banks towards monetizing government debt. Therefore doubts concerning the sustainability of the current world monetary system – which is based on fiat money and the discretionary use of monetary policy for business cycle stabilization – are rising (Selgin, Lastrapes, White 2010, Polleit 2011).

Although there can be few doubt that given the current scope of monetary expansion price, financial, economic and political stability are at risk, very few action has been taken towards monetary policy reform. Policy makers, central bankers and economists seem absorbed by day-to-day crisis management rather than reflecting on the roots of financial fragility and crisis. Instead the imminent threat of financial meltdown and rising unemployment is argued to make further monetary expansion pressing with monetary policy success being regarded to be ensured by the persistence of moderate consumer price inflation (Bernanke 2011, Draghi and Constâncio 2012).

To create a basis for the discussion on monetary policy reform the paper uses the (Austrian) monetary overinvestment theories as put forward by Wicksell (1898), Mises (1912), Hayek (1929) and others as a theoretical framework. This allows to identify monetary policy mistakes in form of “discretionary neglect” towards monetary policy reform, which is argued to have led into a vicious circle of financial crisis, monetary expansion, and rising government debt. To identify the appropriate toehold for monetary policy reform the stability of non-exit equilibria and monetary policy based redistribution chains in favour of the current world monetary hegemon are described. To solve the current dilemma of a hysteresis of low interest rate and high debt environment, currency competition between dollar and euro moderated by East Asia is proposed.

2 The Failure of Monetary Policy Rules and the Supremacy of Keynes over Hayek

Since the mid 1980s, starting with a loose monetary policy in Japan, the world has experienced a pendulum of monetary expansion and financial market boom and bust. The outcome has been an unprecedented scope of crisis, triggered by an unprecedented scale of monetary expansion, which has been justified with the persistence of moderate consumer price inflation and the need for financial stability.

The Austrian monetary overinvestment theories by Wicksell (1898), Mises (1912), Hayek (1929) provide a valuable framework to understand the interaction dynamics between boom and bust in financial markets and the neglect towards monetary policy reform. Given a higher weight of financial markets for economic development,

monetary rules, which were originally designed to depoliticise monetary policy, became the gateway towards a revival of Keynesian macroeconomic fine-tuning by monetary policy making.

2.1 Monetary Policy Failure from a Wicksell-Hayek-Mises Perspective

The monetary overinvestment theories by Wicksell (1898), Hayek (1929) and Mises (1912) were designed to model real business cycles – with the impact on financial markets only playing a second-order role. In the seminal overinvestment theories undue monetary expansion triggers (real) investment booms, which are followed by rising stock prices, rising consumption and inflation (which finally triggers the turnaround). In contrast nowadays, financial market booms (in particular in stock and real estate markets) are followed by consumption and investment booms. The move towards downturn and recession is triggered by financial market crisis rather than by rising inflation. Nevertheless, the monetary overinvestment theories provide a useful framework to understand the most recent boom-and-bust in financial markets and the failure of monetary reform.

To describe Wickell-Hayek-Mises-type overinvestment¹ cycles four interest rates are distinguished. First, the *internal interest rate* is assumed to reflect the expected returns of investment projects. Second, the *natural interest rate* is defined to balance supply (saving) and demand (investment) on domestic capital markets (Wicksell 1898). Third, the *central bank interest rate* is the policy rate set by the central bank. It represents the interest rate, which commercial banks are charged by the central bank for refinancing operations. Forth, the *capital market interest rate* is defined as the interest rate set by the private banking (financial) sector for credit provided to private enterprises. Following the interest rate concepts of Wicksell (1898), Mises (1912) and Hayek (1929; 1935), the saving-investment decisions in an economy are in equilibrium, when the natural rate of interest is equal to the central bank and capital market interest rate.²

An upswing in a closed economy starts, for instance because positive expectations due to real or financial innovation (Schumpeter, 1912; Hayek, 1929) increase the

¹ Alternatively “malinvestment”.

² Usually, the capital market interest rate is assumed to follow the central bank interest rate. For the (temporary) divergence of capital market interest rates and central bank interest rates during crisis see Hoffmann and Schnabl (2011c).

internal interest rate of investment. Given rising investment the natural rate of interest increases. In the endogenous business cycle models of Mises (1912) and Hayek (1929; 1935) a credit and overinvestment cycle emerges as the central bank keeps the policy rate constant during the upswing, allowing for easy refinancing conditions. Additional investment projects with lower marginal efficiency are financed which are not backed by saving, as the interest rate remains low. An unsustainable disequilibrium between saving and investment is constituted.

According to Hayek (1935), excessive lending at constant capital market rates during the upswing distorts the production structure of the economy. As capital market rates stay low despite higher investment, the credit expansion falsely signals that saving (preferences of households to forgo present consumption) has increased. With consumption being expected to decline in the present and to increase in the future, high future returns on investment of capital goods are expected. Unemployed capacities and labour are drawn into the production of investment goods. More consumption is induced by rising employment, wages and income. The demand for consumer goods rises providing an incentive to further increase capacities (Garrison, 2004).

The positive expectations can be transmitted to the asset markets where speculation may set in. According to Schumpeter (1912, 237) price expectations of stocks and other real assets can be disconnected from the real economic development. A speculative mania may emerge, in which speculative price projections and *“the symptoms of prosperity themselves finally become, in the well known manner, a factor of prosperity”* (Schumpeter 1912, 226).

Investment and consumption can co-move upwards as long as there are unemployed workforce and idle capacities. At some point, labor becomes scarce and capacity limits are reached. Resources are bound in the capital goods sectors, whereas the consumption goods sector is unable to satisfy increasing demand. The overemployment of capital and labour cannot be sustained to keep up the production level. Consumer price inflation accelerates. Finally, the central bank increases the interest rate to fight inflation (Mises, 1912; Hayek, 1929; 1935) and/or commercial banks reassess the credit risk. Investment projects turn unprofitable or cannot be finished due to scarce resources (Hayek, 1935). Capital market rates rise and credit is tightened.

The boom turns into bust. Investment projects with an internal interest rate below the increased equilibrium interest rate have to be dismantled. Asset prices burst, which worsens the equity positions and credit worthiness of firms. Investment falls further, which pulls the natural interest rate below the central bank and/or the capital market rate. A saving overhang emerges because saving is more lucrative at relatively higher rates while investment is less profitable. This leads to further disinvestment. Production declines, unemployment rises and wages fall. Private consumption drops and prices start to deflate at higher interest rates. As the central bank and/or commercial banks hold the interest rate above the natural interest rate, the downturn is amplified.

2.2. The Natural Interest Rate and Monetary Policy Rules

Although the monetary overinvestment theories aimed to model real business cycles through boom and crisis rather than identifying and preventing monetary policy mistakes, they can be used as a framework for classifying monetary policy mistakes. Based on the concept of the natural interest rate – which balances saving and investment – two types of monetary policy mistakes can be defined (Hoffmann and Schnabl 2011c).

First, during the upswing the central bank keeps the interest rate below the natural interest rate for too long (monetary policy mistake of type 1). This triggers an overinvestment boom as described above which inevitably leads into crisis and recession. Second, during recessions the central bank keeps the central bank rate above the natural interest rate for too long, thereby aggravating the downturn (monetary policy mistake of type 2).

The policy implication arising from the monetary overinvestment theories is that central banks should keep interest rates close to the natural interest rate to smooth business cycles. Although the natural interest rate remains a theoretical concept and therefore unknown to policy makers, it should be the task to gain sufficient information to keep the central bank rate close to the natural interest rate. In this spirit, Taylor (1993) provided a rule, which narrowed the necessary information to (expected) consumer price inflation and output gaps.

Inflation targets can be seen as special form of monetary policy rules. They intended to shield independent central banks off from political influence, which desires discretionary monetary policy to generate Philips-curve type short-term employment effects (Kydland and Prescott 1977). White (2010) characterizes this constraint on monetary policy makers as the „rule of law“ rather than „rule by authorities“. Since the 1990s inflation targeting regimes as guidelines to contain inflation and to safeguard economic stability failed for two reasons. First, the fall of the iron curtain led to the integration of a large new set of low wage countries (in particular China) into the world economy. Money supply in large countries providing international currencies to the international monetary system could grow without any visible impact on domestic consumer price inflation (Hoffmann and Schnabl 2011b).

Second, the gradual liberalization and growth of international financial markets allowed additional money supply growth to be absorbed by financial rather than goods markets. Monetary expansion showed up in rising asset rather than goods prices. With national monetary expansion in the large industrialized countries being absorbed by foreign goods and/or domestic and/or foreign financial markets, monetary policy could assume a Keynesian discretionary stimulus function without violating inflation targets, which originally intended to contain excessive growth of money supply.

As a result during a period, which was temporarily dubbed great moderation (Stock and Watson 2002, Bernanke 2004), central banks can keep interest rates low for long during booms without violating predefined rules. The impact of monetary expansion on consumer price inflation is postponed via its loop way through emerging market economies and financial markets. Monetary expansion fuells emerging market's growth and asset price bubbles. Inflation only rises with a significant time lag, when wealth effects of rising asset prices make asset holders indulge in consumption.

In the large countries issuing the large international currencies these loop ways were particularly extended, as they took their ways through fast growing emerging market economies. For instance, monetary expansion in the US stimulated capital outflows to China, where the resulting growth impulses helped absorbing the additional money supply. Furthermore a heavily interventionist Chinese government embarked on non-market based sterilization policies to keep domestic inflation and export prices low (Schnabl 2010). Only when Chinese monetary authorities allowed domestic infla-

tion to rise and the exchange rate to appreciate, the inflationary effects of US monetary expansion had feed back effects on the US itself, for instance via US price inflation over imports from China (McKinnon and Schnabl 2009).

2.3. Asymmetric Monetary Policy Making: Keynes' Supremacy over Hayek

The consequence has been the supremacy of Keynes over Hayek in a world where central bank independence and monetary policy rules seem to thrive. Monetary policy reform towards a symmetric use of monetary policy over the business cycle (to avoid monetary policy mistakes of type 1 **and** type 2) with a larger role of financial markets for monetary policy decision making did not take place. Alan Greenspan pioneered a central bank system, which felt obliged to stabilize financial markets in times of crisis, but remained inactive in boom periods. In the so called *Jackson Hole* Consensus US central bankers agreed that central banks do not have sufficient information to spot and prick bubbles, but should intervene in times of financial turmoil (Blinder and Reis 2005).

Thus, whereas in the monetary overinvestment models central bank mistakes were modelled symmetrically to explain business cycle fluctuations, realized monetary policy patterns in the large industrial countries since the mid 1980s became asymmetric (Hoffmann and Schnabl 2011b). Monetary policy mistakes of type 1 prevailed as the impact of expansionary monetary policies on asset price inflation (and volatility) was proclaimed to be outside the responsibility of central banks during boom phases. In contrast, monetary policy mistakes of type 2 were decisively addressed to prevent central banks from worsening recessions by too tight monetary policy stances. Given a rising sensibility of central banks concerning financial stability during crisis, they even tended to transform policy mistakes of type 2 into policy mistakes of type 1 during recessions.

There are three possible reasons for a fall of the central bank interest rate below the natural interest rate during crisis: First, in times of financial panic the central bank has incomplete information concerning the degree of financial instability and assumes the natural interest rate to be lower than it actually is. Second, central banks make a correct assessment of the natural interest rate, but there is no clear institutional separa-

tion between the financial sector and the central bank. This can be caused by a high degree of labour mobility between the central bank and the financial sector. The central bank has an incentive to set interest rates too low to minimize the losses of the financial sector.

Third, the central bank is (informally) dependent on the government and increases the probability of re-election for the government by minimizing unemployment and helping financing rising government deficits. For instance Buchanan and Wagner (2000) argue that the *“facts suggest that the actions of the Federal Reserve Board have not been independent of the financing needs of the federal government. Our hypothesis is that political pressures also impinge on the decisions of monetary authorities.”*

Although the concrete motivation concerning the neglect towards the need for monetary policy reform is difficult to identify, the outcome has been the supremacy of Keynes over Hayek. Monetary policy, gradually and covertly, took over the role of providing a growth stimulus, both in recessions and in booms, instead of remaining solely obliged to price and economic stability. There were two types of justifications for the return of Keynesian monetary policy making despite the apparent success of central bank independence and monetary policy rules. During recessions, on the background of the spook of the world economic crisis (Bernanke et al. 1999), monetary expansion was justified with a Wicksell-Hayek-Mises monetary policy mistake of type 2.

During booms, central banks tended to remain inactive despite financial market exuberance, which can be characterized as discretionary neglect towards necessary monetary policy reforms. Central banks did not curtail excessive money supply growth, as domestic inflation remained contained. The impact of monetary expansion on future economic stability in form of bursting bubbles was claimed to be outside predefined rules. In Europe, where the monetary pillar of the ECB monetary policy strategy provided sufficient room to incorporate the possible impact of monetary expansion on asset price inflation in monetary policy decisions, the monetary pillar came under attack (De Grauwe 2006). The reference value for money supply growth became widely ignored. When the bubbles burst, however, the resulting losses of financial institutions urged the central bank into new monetary policy mistakes of type 2.

The new Keynesian growth model became based on the redistribution of wealth from savers to consumers on an international level. Keeping interest rates below the natural level causes overinvestment (or speculation) booms. When the boom turns into bust, liabilities of consumers and investors are devalued via devaluation of financial investments or outright default of financial institutions. This allows for a new round of credit financed overinvestment-type growth stimulus. Excessive monetary expansion (i.e. the indirect devaluation of savings) lead to the conservation of previous overinvestment as well as to the start of new overinvestment cycles.

3 The Global Move into the Liquidity and Debt Trap, and its Hysteresis

Since the monetary counterrevolution of the early 1980s, which marked the return towards a high weight of price stability for monetary policy making, interest rate levels in the large industrial countries (Japan, US, Germany/euro area) continued to structurally decline. Whereas in the US and the euro area the non-exit from the (close to) zero interest rate policy remains to be perceived as temporary, the persistence of the zero interest rate policy in Japan has been dubbed liquidity trap. The structural decline of central bank interest rates below the natural interest rate – and the resulting erosion of the signalling and allocation function of interest rates – interacts with rising government debt levels to postpone monetary policy reform.

3.1 The Global Structural Decline of Interest Rates

The structural decrease of both the nominal and real interest levels began in Japan in the mid 1980s, driven by an asymmetric exchange rate policy (Danne and Schnabl 2008). Because the economic performance of the highly regulated Japanese economy hinges on the dynamic export sector, yen appreciation constitutes a painful drag on growth. Japanese monetary authorities intervened in foreign exchange markets in times of yen appreciation to soften appreciation pressure, whereas they remained inactive when the yen depreciated.

Given this asymmetric intervention pattern, the Japanese foreign exchange reserves rose to unprecedented levels. Although Japanese foreign currency purchases

were sterilized in the first place to neutralize effects on domestic monetary conditions, interest rates fell during appreciation phases while they were not proportionally raised when the yen depreciated. As a result, Japanese short-term interest rates fell in waves – often linked to crisis events – from approximately eleven percent in 1980 to nil in 1999. Since then Japan remains stuck in what is labeled liquidity trap (Blanchard 2000).

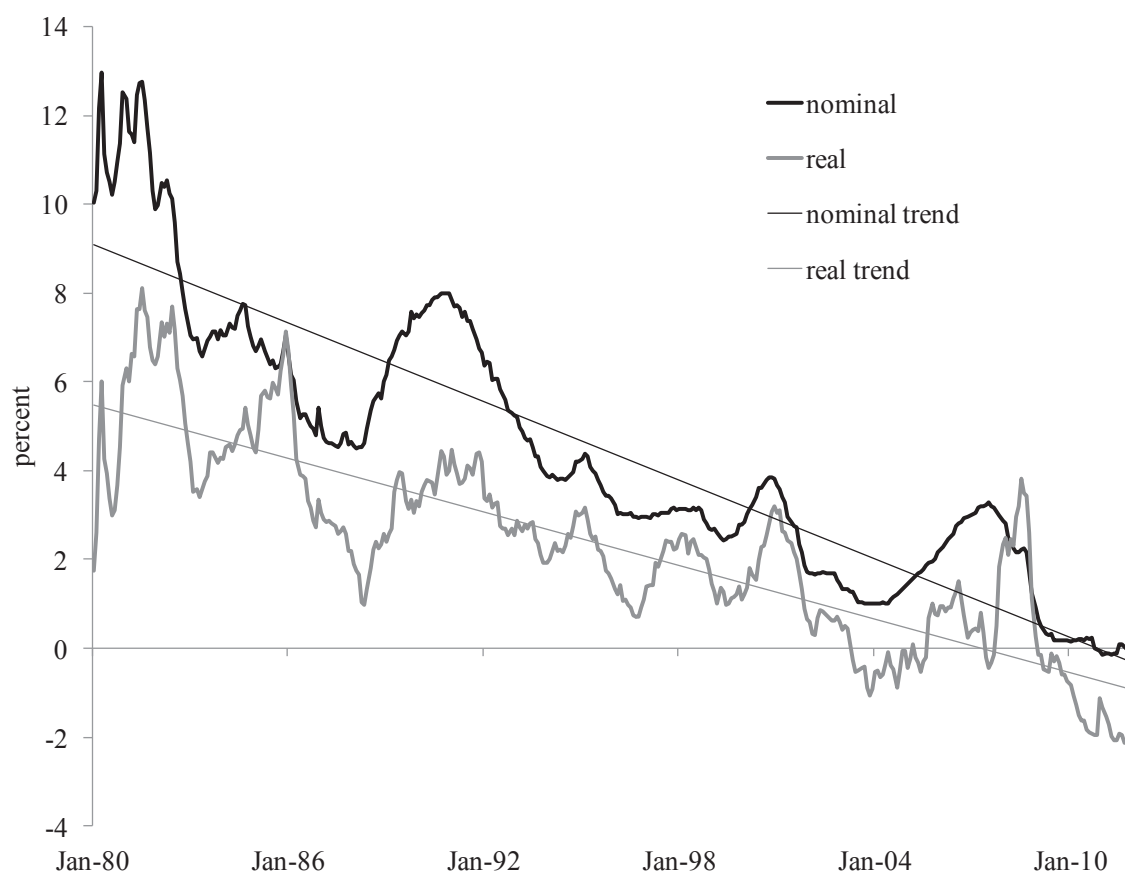
A similar scenario emerged in the US under Alan Greenspan with respect to stock markets. Monetary policy tended to respond to bear markets (1987 stock market crash, burst of the dotcom bubble, subprime crisis) while it refrained from intervening in the bull markets of the dotcom or the subprime booms (Hoffmann 2009). The key interest rate fell more quickly in recessions than it rose during booms, from more than 18 percent in 1980 to close to nil in 2009. Currently, chairman Bernanke (2011) signals zero interest rates to persist for a while.

The EMU experienced a similar development, although on a smaller scale as the German notion that monetary policy should be solely committed to price stability more strongly prevailed. Nevertheless the euro zone did not remain isolated from foreign monetary trends due to appreciation pressure on the euro, which affects in particular the economic performance of the former weak currency countries. During the most recent crisis the European Central Bank has cut the main refinancing rate to a historical low of 1 percent accompanied by several unconventional monetary policy measures.

The outcome has been on a global level asymmetric monetary policy patterns – interest rate were cut more during crisis than they were lifted during the upswing after crisis – and therefore a decline of central bank policy rates towards zero. Figure 1 summarizes the structural decline of nominal and real interest rate levels in the large industrialized countries since the early 1980s towards zero nominal rates and negative real rates.

Figure 1

Nominal and Real Money Market Interest Rates in Japan, US, Germany/Euro Area



Source: IMF: IFS, 2009. Arithmetic averages.

3.2. The Structural Increase of Public Debt Levels

The structural decline of interest rates which reflects a steady monetary expansion beyond output growth in the large industrial countries was followed by a growing wave of boom-and-bust cycles in asset markets as described by Hoffmann and Schnabl (2008, 2011a) based on the monetary overinvestment theories. Both boom and bust periods contributed to a (partially hidden) gradual increase of government debt levels, as politicians around the world exhibited a neglect towards the Keynesian postulate of (symmetric) counter cyclical fiscal policies. The discretionary neglect towards monetary policy reform also encouraged the neglect towards the postulate for sound government expenditure.³

³ In Europe underpinned by the Maastricht rules for sound fiscal policies.

During boom periods, when monetary expansion and financial market exuberance, inflated – often for the surprise of policy makers – tax revenues, fiscal policy makers could not resist the temptation to embark on rising expenditure instead of reducing already considerable public debt levels. The pro-cyclical fiscal policy mistakes during increasingly financial market driven upswings had two dimensions. First, politicians did not behave anti-cyclically during the boom, as additional tax revenues were not saved and spending was not cut (fiscal policy mistake of type 1). In particular in Germany and the US tax cuts came on the political agenda during financial market booms.

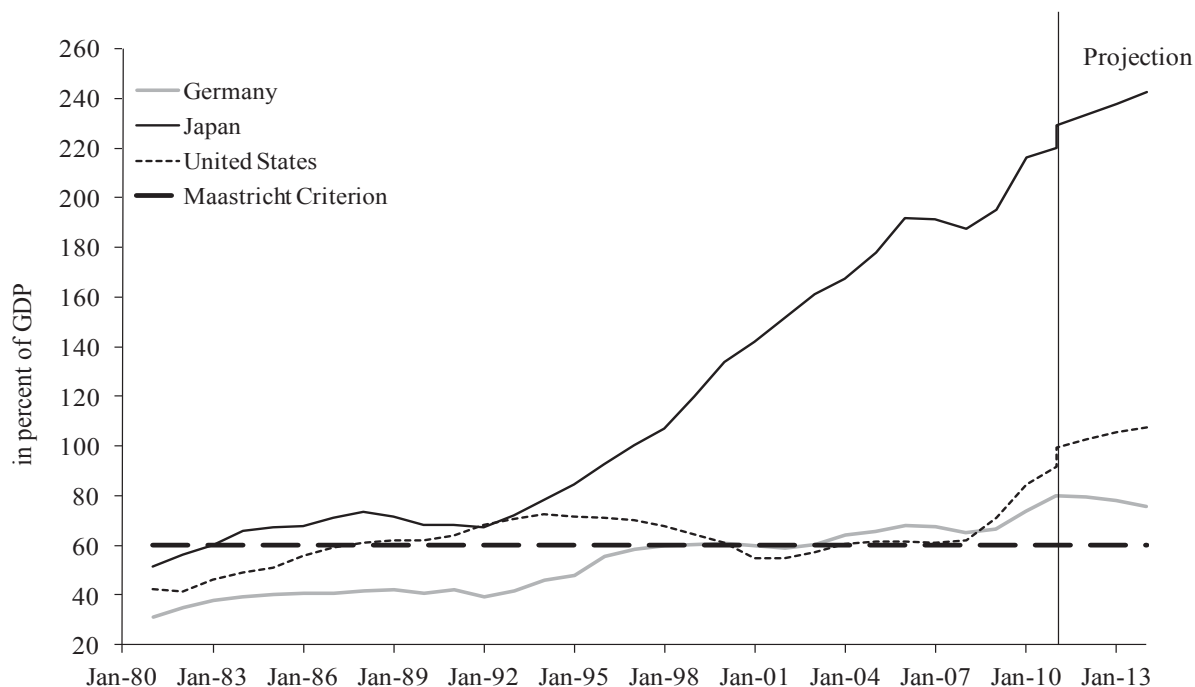
Second, fiscal policy makers did not realize that during overinvestment (and/or speculation) booms tax revenues were inflated beyond tax revenues in conventional upswings. Future adjustment costs arising from overinvestment during the boom were not anticipated by policy makers (fiscal policy mistake of type 2). For instance in Ireland and Spain unsustainable financial market and real estate booms made look public budgets sound during the upswing. During the crisis, the costs originating in the exuberance of the boom were realized in form of sudden and large burdens for public finances.

The fiscal consequences of fiscal policy mistakes of type 1 and 2 could be (partially) shifted to the central bank if interest rates were cut below the natural interest rate during crisis. Hoffmann and Schnabl (2011b) dub this phenomenon the “fiscal honeymoon grace to monetary expansion”. When monetary policy rates approached the zero bound – in Japan since the mid 1990s and in the US and the euro area since the late 2000s – public debt levels started to strongly increase because – despite unconventional monetary policy measures – the potential for monetary policy based macroeconomic stabilization had significantly shrunk.

Thus, the hike of public debt levels during crisis in the liquidity trap has four dimensions. First, the declining effectiveness of monetary policy. Second, the extraordinary need for fiscal stimulus during extraordinary crisis. Third, the lack of anti-cyclical saving during the boom in the Keynesian sense. Forth, the lack of anti-cyclical public saving in the Hayekian sense, which is linked to inability of policy makers to spot bubbles and to anticipate the fiscal consequences. Figure 2 shows the resulting

structural increase of public debt levels in the large industrial countries. Japan has entered the liquidity trap a decade earlier and can be therefore seen as a frontrunner.

Figure 2: Public Debt Levels in US, Japan, and Germany



Source: IMF, *World Economic Outlook*, 2011.

3.3. The Hysteresis of the Liquidity Trap

Once countries have entered the liquidity trap and public debt levels continue to increase, a hysteresis effect sets in and low interest rates persist. The hysteresis of neglect towards monetary policy reform has a private and a public dimension and is grounded on the lost signalling and allocation function of the interest rate.

The hysteresis of the liquidity trap is caused by the “fear of adjustment” after the boom has turned into bust. The usual adjustment process of the private sector according to the monetary and real overinvestment theories of Wickell (1898), Hayek (1929) and Schumpeter (1912) is the dismantling of investment projects, which have been initiated contingent on a capital market interest rate below the natural interest rate. These investments would turn unprofitable when credit conditions are tightened towards the natural interest rate.

In the real sector, without policy intervention, enterprises being faced by declining demand and declining prices either exit from the market, consolidate their business activities or struggle to survive on a lower level of production. Schumpeter (1912: 360-369) regards this “cleansing effect” of recessions as an essential part of a market economy for four reasons: Speculative investment is to be abandoned, inefficient enterprises have to leave the market, the efficiency of the remaining enterprises is strengthened (as wages decline and productivity rises), and new enterprises, products and production processes emerge at the cost of old ones.

To prevent rising unemployment central banks will tend to keep policy rates low for long. This implies in the liquidity trap “*the persistence of the unadapted and unlivable*” (Schumpeter 1912: 367). The marginal efficiency of the private investment will tend to decline, as the allocation function of the interest rate is lost, and (speculative) investment projects with a low marginal efficiency persist. Structural distortions emerge and persist.

From a financial market perspective, the zero interest rate policy of the central bank provides incentives for commercial banks to postpone the restructuring of credit portfolios. Investment projects with a low marginal efficiency continue to be financed and – as the average marginal efficiency of the financed investment projects has declined – commercial banks become more vulnerable to at tightening of money supply. The central bank feels urged to keep interest rates at zero to preserve financial stability.

From the government perspective the pressure on the central bank to keep interest rates low results from the signalling function of the interest rate concerning the soundness of government debt levels. Under free market conditions rising default risk due to rising debt levels is reflected in higher risk premiums. Rising interest rates signal the need for fiscal consolidation. But this signal is nullified by the central bank.

For instance, since the turn of the millennium rising (potential) debt levels in the current European crisis countries should have led to rising risk premiums. Yet expansionary monetary policy, following the burst of the dotcom bubble, compressed the risk premiums. On the credit demand side buoyant capital inflows into the later crisis economy created the illusion of comparatively sound government finance. On the supply side, undue money growth urged creditors into investment projects with high (but hidden) risk.

The upshot is, that in the liquidity trap, after government debt levels have substantially increased, governments will be only able to circumvent painful tax increases and/or spending cuts, if the central bank continues to compress risk premiums on government bonds. Unconventional monetary policy measures such as excessive government bond purchases have to be born to keep interest rates low at the long end of the yield curve.

During the downward path of interest rates since the early 1980s, central banks provided an incentive to increase government debt levels on the back of a price and an income effect. First, the price effect resulted from reduced financing cost for government debt, which allowed increasing debt levels without a major impact on the interest rate burden (as a share of expenditure). Second, during the busts after the booms the deleveraging of private agents (due to a higher risk exposure) created a negative income effect, which governments felt urged to compensate by rising government expenditure.

As debt levels increase, the central banks must keep interest rates low, as the governments are faced by the inversed income and price effects: Rising interest rates would increase the share of the interest rate burden in the public budgets, what would force the government into unpopular tax hikes and/or expenditure cuts. The fiscal tightening would aggravate the recession, which is unpopular among voters and policy makers. The inevitable consequence is the persistence of monetary expansion, i.e. monetary policy reform keeps being postponed.

4. The Failure of Monetary Policy Reform

Given the hysteresis of low interest rates and high public debt levels the structural decline of the marginal efficiency of investment and therefore growing structural distortions in the world economy make reforms of the world monetary system pressing. The question of how the world can return towards a free market based system with stability oriented monetary (and fiscal) policy can be addressed based on three dimensions: The exit from ultra low interest rates and unsustainable government debt, the constitution of symmetric, financial market oriented monetary policy rules, and the constitution of an alternative world monetary system, which impedes central banks of large countries to embark on undue monetary expansion.

4.1 The Exit Dilemma

The prevalent institutional framework of monetary policy making – being based on fiat money, central bank independence and monetary policy rules – still seems to be widely accepted among policy makers, central bankers and academics. Given this status quo monetary policy reform in a world of central banks would focus on the exit from low interest rate and high debt policies. The exit from the liquidity and high debt traps has a macroeconomic policy dimension – which refers to the coordination of the monetary with the fiscal exit (Giavazzi 2009) – and a country dimension – which refers to the monetary policy stance of other countries versus the US as the global monetary hegemon (Belke and Schnabl 2011).

The monetary overinvestment theories stand for the monetary exit moving first. As decision making and implementation of fiscal tightening is a slow process of political decision making, any approach, which regards fiscal consolidation as a prerequisite for monetary consolidation, would be equivalent to a postponed monetary policy exit. Boom-and-bust cycles, crisis and structural distortions would be perpetuated. The structural adjustment burden during the postponed monetary exit would increase.

In contrast, by moving timely towards monetary consolidation, i.e. gradually pushing the central bank rate towards the natural interest rate, would create a clear incentive to fiscal policy makers to consolidate public expenditure and public debt levels. The reconstitution of the signalling and allocation function of interest rates would turn all current attempts to substitute the signalling function of interest rates by fiscal policy rules redundant.⁴ The process of creative destruction would trigger – after a painful restructuring process and recession – a sustainable upswing on the back of a gradual increase of the marginal efficiency of investment. Yet, short-term oriented policy makers would be inclined to circumvent creative destruction by the perpetuation of the liquidity trap.

From an international perspective a credible exit from low interest rate policies hinges on the US as hegemon in the world monetary system, because any move towards monetary expansion in the US implies an inherent pressure on other central

⁴ This approach would be even more appealing, as non-automatic fiscal policy rules in the European Union have proved to be weak.

banks to follow (McKinnon 2012, Löffler, Schnabl, Schobert 2010). With the Federal Reserve having announced that the Federal Funds Rate will remain close to zero at least up to the year 2013 a restriction is set on the exit from low interest rate policies for all members of the informal dollar standard (McKinnon 2012).

Even Europe will be urged to keep interest rates low. The transatlantic transmission of the non-exit from the liquidity trap works via the euro-dollar exchange rate, economic heterogeneity and crisis in the euro area. As US money supply expands the euro appreciates. The resulting moderation in inflation opens the door for monetary expansion in the euro area, although capital inflows from the US and declining interest rates encourage risk taking in financial markets. The multinational ECB decision making body will be inclined to embark on monetary expansion, as imbalances in the monetary union are amplified.

Whereas countries with a strong currency history (Germany) can withstand appreciation, countries with a weak currency history lose competitiveness and therefore desire interest rate cuts. The loss of competitiveness of former weak currency countries can be intermediated by credit from former hard currency countries. But rising default risk on rising liabilities by the former weak currency countries can act as a catalyst for rising political interest of the former hard currency countries in ECB interest rate cuts, if the international credit is intermediated by the banking sector of former hard currency countries. Thus, the heterogeneity of the European Monetary Union makes – given excessive monetary expansion in US – an independent exit of the European Monetary Union from the liquidity trap unlikely. The likelihood of an exit further decreases, if the European Central Bank accumulates government bonds of former weak currency countries in its balance sheet.

4.2 Instruments to Control the Monetary Hegemon

For this reason the efforts towards monetary policy reform should be focused on a mechanism to control the monetary hegemon against monetary expansion. To impose – based on the current system of central banks – a stability oriented monetary policy on the monetary hegemon two strategies can be pursued. First, an adjustment of

monetary policy rules to a financial market dominated environment. Second, the introduction of a restraint on money supply growth of the monetary hegemon.

A reform of monetary policy rules would have to put the focus on symmetry (Hoffmann and Schnabl 2011b) and a larger weight on the long-term impact of monetary expansion on financial markets. Symmetric rules imply that the central bank avoids both monetary policy mistakes of type 1 and type 2 keeping the central bank interest rate close to the natural interest rate. The challenging task of central bankers would be to gain precise information, where the natural interest rate is located. Even if a monetary policy mistake of type 1 occurs long-term consequences of undue monetary expansion could be cured, if the central bank rates would rise to the same degree as they have declined during the economic upswing. A policy mistake of type 1 would have to be followed by a policy mistake of type 2 to maintain long-term financial and economic stability.

Needless to say, that a return towards the natural interest rate requires temporarily an inversed asymmetric monetary policy pattern. Moderate interest rate cuts during recession have to be followed by larger interest rate cuts during the upswing. The monetary policy exit from the liquidity trap would create short-term recession and long-term growth on the back of Schumpeter's creative destruction and a rising marginal efficiency of investment.

Monetary policy reform in form of a larger weight of financial markets in monetary policy rules and reaction functions have been discussed controversially. Cecchetti et al. (2000) argue that asset markets should be incorporated into monetary policy decision making to gain more information concerning future inflation. They acknowledge that central banks cannot spot and prick single bubbles (as boom and bust is an inherent characteristic of market economies). But the structural impact of inflated money supply on the likelihood and scope of crisis would be contained.

In contrast, Bernanke and Gertler (2001) stress the inability of central banks to spot bubbles and stress the risks of a possibly too restrictive monetary policy. Yet, given the current degree of excessive monetary expansion, from the point of view of the monetary overinvestment theories a tighter monetary policy stance is inevitable to reduce the likelihood of new financial turmoil and a further decline of the marginal efficiency of investment.

An alternative strand of literature has explored control mechanisms for money supply growth of monetary hegemons. White (2008) stresses that in historical comparison gold standards provided more moderate and steady monetary growth and economic stability than the current monetary system. Deflation is identified not to be harmful per se. Selgin, Lastrapes and White (2010) argue that the instability of the US financial system under the gold standard was due to serious flaws in the US bank regulatory system rather than due to the gold standard itself.

More radical approaches opt for complete abolishment of the central banks by a move towards free banking and currency competition. For instance, Selgin and White (2005) argue that to forestall financial instability, currency redemption commitments have to be moved from monopolistic and legally immune central banks to competing private issuers. Hayek (1937: 93) proposed a denationalization of money as *“a really rational monetary policy could only be carried out by an international monetary authority, or at any rate by the closest cooperation of the national authorities and with the common aim of making the circulation of each country behave as nearly as possible as if it were part of an intelligently regulated international system.”*

Although these propositions address the core flaw of the prevalent fiat money based international monetary system, they strongly hinge on the willingness of the monetary hegemon to embark on monetary policy reform. This raises the question if the US is willing to renounce on an important source of income linked to monetary expansion.

4.3 Global Imbalances and Redistribution as Impediments to Monetary Reform

The monetary expansion in the large industrial countries has inflated not only asset market prices but has also caused imbalances in current accounts. This sets the stage for systematic international redistribution processes, which reinforce the neglect towards monetary policy reform by the global monetary hegemon. The structural decline of interest rates has distorted inter-temporal optimization patterns causing a divergence of international asset and liability positions (Schnabl und Freitag 2011). High international debt positions serve as a catalyst towards low interest rate policies in debtor

economies, as they have become the basis of international redistribution processes (Schnabl 2011).

In the US the structural decline of interest rates has encouraged rising debt and consumption levels of households, enterprises and government, as interest rate cuts have kept the interest burden as a share of income widely constant. The outcome has been growing consumption, government spending, government debt and current account deficits as percent of GDP, with the latter having led to a growing net international liability position. At the periphery of the informal world dollar standard, countries are forced into rising current account surpluses due to their attempts to cope with buoyant capital inflows and hiking raw material prices (see McKinnon and Schnabl 2011 for China).

Given declining US interest rates, carry trades are encouraged to hunt for yield in a rising number of emerging markets where growth perspectives are inflated by capital inflows in a self-fulfilling way. Given the fact that both goods and capital markets of emerging market economies are less developed than in industrial countries, the absorption capacity for capital inflows and monetary expansion without inflationary and asset market pressure is comparatively low. This has forced the emerging markets at the periphery of the dollar standard into relatively restrictive monetary (and fiscal) policies in form of nominal exchange rate stabilization cum non-market-based sterilization. The outcome has been rising financial account deficits that finance the US current account deficits.

Similarly, in Europe the divergence of current account balances between Germany and many European periphery countries since the turn of the millennium has been driven by divergent macroeconomic policy stances (Schnabl and Zemanek 2011). Whereas in Germany serious attempts based on wage austerity were made to consolidate public finances and the competitiveness of the enterprise sector, many countries at the periphery of the European (Monetary) Union embarked on expansionary fiscal and wage policies.

The resulting rise of current account deficits at the periphery of the European (Monetary) Union was financed by capital inflows from countries with tighter macroeconomic policy stances such as Germany. The divergence in intra-European current account imbalances has been amplified by a low interest rate policy of the European

Central Bank after the burst of the dot-com bubble, which destroyed the signaling function of the interest rate concerning higher default risk.

The rising divergence of international asset and liability positions within the informal dollar bloc and within the European (Monetary) Union has become the breeding ground of redistribution schemes, which erode the incentive for international debtor economies to initiate monetary policy reform. In the informal world dollar standard, the supremacy of the US over monetary policy making is linked to the exorbitant privilege of the dollar as an international currency (Habib 2010) and an unlimited line of credit to be drawn from the countries at the periphery of the dollar standard (McKinnon 2010).

Given the structural characteristics of underdeveloped goods and capital markets, in the face of and monetary expansion in the US the countries at the periphery of the world dollar standard are inevitably forced into the accumulation of dollar reserves.⁵ Any additional step in US monetary expansion is equivalent to a real devaluation of these US dollar liabilities. In the case of fixed exchange rates international asset are devalued in real terms due to imported inflation. In the case of flexible exchange rates international dollar assets are devalued in nominal and real terms via dollar depreciation.⁶

The redistribution process from dollar periphery central banks to the US government is not linked to crisis as it takes place among the government sectors with losses being realized by the central banks of the dollar periphery. The redistribution process within the dollar periphery predominantly occurs from poor to rich. It is, for instance in China, further underpinned by real exchange rate stabilization and other export subsidies, which constitute an additional redistribution channel from Chinese tax payers to US consumers. The US financial sector further gains by intermediating dollar based transactions, for instance US government bond purchases by dollar periphery central banks. The upshot is that any move towards monetary reform by the US is equivalent to a move away from exploiting the privilege of being the issuer of an

⁵ This phenomenon is independent from the exchange rate regime (Freitag and Schnabl 2011). Given fix exchange rates such as in Hong Kong and many oil exporting countries, US monetary expansion is directly translated into domestic monetary expansion. Given more flexible exchange rate regimes, the threat of inflation and asset price bubbles, sterilization costs (which erode central bank independence) or revaluation losses on foreign currency denominated assets provide an inherent incentive to intervene against appreciation pressure on domestic currencies (Löffler, Schnabl and Schobert 2011).

⁶ McKinnon and Schnabl (2004) dub the phenomenon that the East Asian saving surplus countries are trapped into foreign currency denominated, i.e. dollar assets “conflicted virtue”.

international currency. Monetary reform pioneered by the US is particularly unlikely because US government debt is to a large extent held by foreigners rather than by domestic households.

An incentive towards a move of the US towards monetary policy reform could be created by a stability oriented monetary policy stance in Europe. A tight monetary policy by the European Central Bank would enhance the international role of euro as a store of value thereby challenging the international role of the dollar. However, also in Europe the move towards a tighter monetary policy stance on the back of decisive monetary policy reform is unlikely due to the redistribution effects of expansionary monetary policy within the EMU. These are based on intra-European current account imbalances.

Although the institutional framework of the European Central Bank is modeled in the German spirit to protect the wealth of savers based on a stability oriented monetary policy, decision making in the ECB is based on the one-country-one-vote principle. This gives a substantial weight to former weak currency and current intra-European debtor countries. The intra-European international asset and liability positions are intermediated by the banking sector, which is destabilized once debtors are inclined to default.

The outcome is that expansionary monetary policy provides via its amplifying effect on intra-European liability and asset positions an incentive towards new rounds of monetary expansion rather than for monetary policy reform. Threatening defaults of the periphery debtor countries trigger quasi bailouts and implicit transfer mechanisms in form of EU- or IMF-led rescue programs, the TARGET2 system and/or the upcoming European Stability Mechanism. As these mechanism herald either rising government debt or a rising stock of risky assets in the ECB balance sheet, further monetary expansion is likely. This is even more the case, as the expansionary ECB monetary policy stance is contingent on the expansionary monetary policy stance in the US.

Therefore, the supremacy of Keynes over Hayek in monetary policy making, financial instability in form of boom-and-bust cycles, the hysteresis of low interest rates and high debt levels, global and intra-European imbalances as well as the incentive for international redistribution based on international asset and liability positions are likely to prevail. Unless the US monetary hegemony is challenged.

5 Checks and Balances in the International Monetary System

Hayek (1937) argued that national monetary policies bear the danger of international (economic) instability if they aim to stimulate domestic growth without regard on the international repercussions. It has been shown that the temptation by monetary hegemonies to stimulate growth based on consumption, debt and international redistribution has led into an unprecedented scale of US monetary expansion. The outcome is an unprecedented scale of global monetary expansion, financial instability, redistribution via hidden piecemeal default and rising discontent concerning income inequality.

Accepting the current fiat money and central bank based international monetary system as given, any monetary reform – with the aim of nudging back central bank interest rates towards the natural interest rates – presupposes a disciplining mechanism on the world monetary hegemon. As this hegemon is unlikely at the current point of time to impose any constraint on its monetary policy making by itself, the constraint has to come from outside, i.e. from the periphery countries of the world dollar standard and the euro area.

Such an external constraint could be achieved via a credible commitment of the East Asian countries, in specific China, to gradually re-peg their currencies from the dollar to euro. Although this would entail significant losses for China and other East Asian countries on their dollar denominated foreign assets, future accumulation of foreign assets could be protected against (real) devaluation. The euro could serve as a more credible anchor currency and store of value, as the resulting seigniorage gains could be used to solve the current European debt crisis. Reducing the intra-E(M)U asset and liability positions would allow for a reconstitution of the stability oriented ECB monetary policy framework. A stronger focus on the second pillar of the ECB monetary policy strategy would allow putting a larger weight on the impact of money growth on financial market volatility and exuberance.

In this environment of enhanced competition for the privileges of an international currency, East Asia (in particular China) could assume the role of a mediator. A stronger diversification of East Asian foreign reserve holdings and exchange rate stabilization based on dollar and euro based currency baskets with changing weights could

create a disciplining mechanism concerning undue monetary expansion in the US or the euro area. By stabilizing the internal and external value of the currency, more seigniorage gains could be attracted. This system of monetary checks and balances could path the way towards credible monetary reform to create more global financial, economic and political stability.

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