

# Does the capital market create problems for the economy?

THOMAS FRANZÉN\*

The author is the former head of the Swedish National Debt Office and former Deputy Governor of the Riksbank

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*Many economists have pointed out that there is reason to believe that returns required by companies in several countries have been far too high for a long period of time compared with the preferences of their owners, and that this has contributed to corporate investment being too low in relation to GDP. In that case, this is not compatible with a well-functioning capital market.*

*In my opinion, there is a major risk of the shortcomings in the analysis of the capital market's role in formulating fiscal and monetary policy contributing to economic policy becoming too expansionary across the globe. It also means that I consider current economic policy in several countries to be in conflict with long-term sustainable development. One reason may be that it has tried to adapt itself to unsustainable required returns. Overly expansionary economic policy, globally speaking, risks contributing to financial crises with greater unemployment and social unrest as a consequence. Regulation of the financial markets can reduce the risks of new crises, but monetary policy also has a responsibility to consider financial stability.*

*Appropriately designed fiscal policy, focusing on issues such as investment and industrial policy, could alleviate the effects of shortcomings in the capital market as well as relieve the pressure on monetary policy. But, for economic policy to have the intended effect and contribute to higher investment, the analysis that forms the basis of the policy should explicitly include the shortcomings in the capital market. People don't just react to measures. If the analysis is inadequate or people don't understand or respect it, the impact of the measures will be affected. Uncertainty and a lack of trust may then dominate their behaviour and it will be difficult to achieve a desirable development. A good analysis is a necessity in order to create the right conditions for sustainable and stable development.*

*The analysis does not therefore only affect policy design. It also provides a basis for information to the market about the shortcomings in the capital market, a solution to which is in many people's interest. More political economists, in partnership with business economists and behavioural scientists, should study how companies work in practice. It is important to analyse expectations and behaviours and discuss what is rational and compatible with long-term stability and to promote reform of the capital market so that it serves the interests of savers, borrowers and society as a whole.*

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## 1. Time to study the capital market

Interest rates and inflation have fallen dramatically after the financial crisis at the end of 2008. Unemployment, which rose in conjunction with the crisis, is still high in several countries in the euro area, while it has fallen back in countries such as the United States, Germany and Sweden. Some central banks have introduced negative policy rates and purchased bonds to lower long-term interest rates. They have, in other words, pursued what is referred to as “unconventional monetary policy”, the aim of which is to increase the demand for goods and services and thereby inflation.

In 2015, stock markets have reached very high values but have since fallen back. They are influenced to a high degree by uncertainty regarding international economic development and prospects of achieving good growth. There is also unease and discussion regarding the risks on property markets and a general concern for what will happen to asset prices once interest rates return to more normal levels. This development has led to extensive changes in the global regulatory framework for banks in order to reduce the risks in financial companies and the risks of major shocks in the real economy in the future.

A question that can also be asked is whether monetary policy, with the current level of interest rates, will become too expansionary and thereby impose ‘too high’ demands for financial market regulation or changes to taxation. By this, I mean measures that may come into conflict with structural and distribution policy considerations. At the same time, there is concern that inflation will be below the set inflation target for a long time despite very low interest rates. An important question is whether low policy rates for a long time risk leading to permanently lower inflation, especially if the low interest rate is perceived as the central bank lowering the inflation target.<sup>1</sup> Borio, Erdem, Filardo and Hofmann (2015) argue, however, that low inflation or mild deflation is not so problematic for economic development.

In this article, I turn my focus on corporate investment and further develop the analysis of the causes of financial crises that I have published previously.<sup>2</sup> I discuss both levels of required returns and factors that contribute to returns varying in a microeconomic and business economics perspective. A central question is why companies often set financial targets for return on equity that are often between 15 and 20 per cent, that is, considerably higher than the investment funding costs.

A theme in the article is that too high required returns on equity in companies lead to their level of investment being too low and to capital formation in society not being in harmony with people’s valuations of the future. In that case, this is a market failure and may be a cause of financial crises and of the difficulties in achieving stable and sustainable growth. Financial crises can, in turn, lead to required returns rising further, which will exacerbate the problems. An increase in required returns during times of economic crisis, when uncertainty rises, can in itself be considered normal. But if economic policy tries to

1 See Jonson and Reslow (2015) for an empirical analysis that supports this view.

2 See Franzén (2005), (2009a), (2011a), (2011b), (2012b), (2013), (2014), (2015).

adapt itself to a non-sustainable level of returns, it may well contribute to the uncertainty. The article therefore analyses, to a certain extent, how economic policy can be adapted so that it considers the shortcomings in the capital market.

The article is part of a tradition in economics of questioning the efficiency of the capital market, a tradition that includes names such as Alfred Marshall, Arthur Pigou, John Maynard Keynes, Benjamin Graham, Andrew Haldane and Michael Sumner. They have highlighted the existence of short-sightedness in companies and on markets, and the fact that this distorts investment by putting too low a value on future revenue.<sup>3</sup> Research has also indicated empirical support for the thesis that companies have very high required returns.<sup>4</sup> Business economists have also discussed and expressed surprise at the high return targets. An important basis for this article is my own practical experience of being a member of the OMX Nasdaq board, as well as discussions with both private and state-sector business leaders.<sup>5</sup>

The article has common points of interest with studies that show how crises increase financial frictions, delay the return to trend development and lead to higher unemployment, lower wages and production. Hall (2015), for example, has analysed why corporate investment has fallen so much in the United States after the financial crisis, despite profits in relation to book equity having been high and returning quickly to high levels in the wake of the crisis, which is shown in Figure 1.<sup>6</sup> The figure also shows that the returns of Swedish companies after the crisis year of 2009 rose to approximately the same level as before the crisis. Hall also notes that the difference between return on investment and the risk-free interest rate, known as the 'capital wedge', has increased significantly since the crisis and remained considerable in the United States, which can be seen in Figure 2. We can also see from the figure that the capital wedge has also grown substantially in Sweden and, in 2012, was on the same level as in the United States.<sup>7</sup> Hall has demonstrated that this can be an explanation for why financial crises are so prolonged. He talks of this process in terms of inertias, costs for capital change and changes in perceived risk.<sup>8</sup>

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3 See, for example, Haldane (2011a).

4 See section 2.

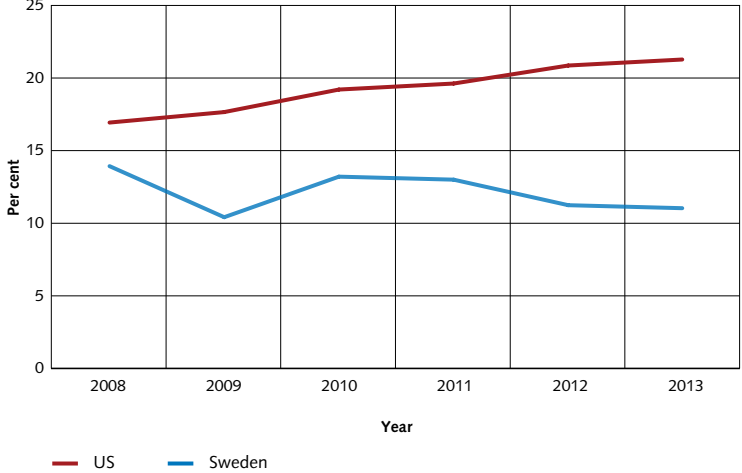
5 See Stenhammar (2012).

6 See also Hall (2011).

7 Due to how the capital wedge is calculated, it is not currently possible to calculate the series further than 2012.

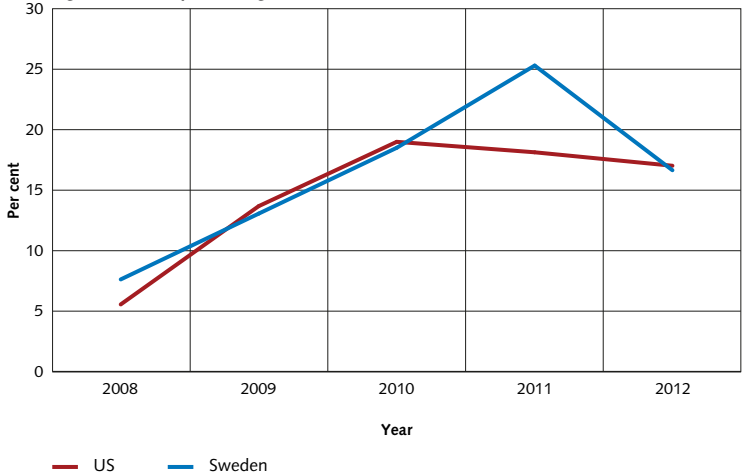
8 Other studies on the impact of financial crises are Kocherlakota (2013) and Christiano, Eichenbaum and Rebelo (2011).

**Figure 1. Corporate profits in relation to the capital stock**



Sources: US: Hall (2015). Sweden: Statistics Sweden; Own calculations

**Figure 2. The capital wedge**



Sources: US: Hall (2015); Measures that include adjustment costs ( $\kappa=2$  in Halls Figure 11). Sweden: Statistics Sweden; Own calculations

If the variations in the capital wedge are significant for economic development, there is also reason to ask oneself whether or not the levels of the required returns are also significant. What will be the consequences if companies specify long-term targets for return on equity of around 15-20 per cent nominally? Can companies' targets even help to explain some of the increase in the capital wedge?

Section 2 of this article presents an overarching description of the role of companies on the capital market. Sections 3-6 present the background to companies' required returns and the effects of their behaviour. The consequences for economic policy are then

discussed along with suggestions for how the functioning of the capital market could be improved. Sections 7-9 analyse the consequences of an economic policy that tries to adapt itself to companies' excessively high required returns. This may contribute to future financial imbalances and cause serious problems in the real economy. Sections 10 and 11 discuss how monetary policy should be designed when it explicitly takes into account the inefficiency of the capital market. The objective of monetary policy should be flexible and give consideration to financial stability. Fiscal policy should focus on investment. The view on the privatisation of publicly owned companies may need to be reconsidered. The article stresses the need to improve the capital market. Political economists should, in partnership with business economists, take on the task of creating the conditions to improve the capital market by supplying information. This involves, for example, improving corporate governance so that financial targets are based on savers' – owners' – valuation of the future.

## 2. The role of companies on the capital market

The task of companies is to make investments that fulfil savers' required returns. Companies may obtain resources by reinvesting profits, issuing shares or borrowing money. These channels differ when it comes to risk, taxation, transaction costs, information requirements, etcetera. Since loans provide a more reliable flow of compensation to savers, the lending rate will be less than what savers require to buy shares.

If the capital market works well, companies adapt their equity and borrowing so that there is a difference between the lending rate and return on equity which compensates for the difference in risk between borrowed capital and equity. This difference varies and depends on the type of operations conducted by the company. The aim for companies is to maximise their net present value. It is hence not a question of maximising return on equity. The owners derive more benefit from the company getting a return of 10 per cent on a large amount of capital, than an enormous return on a small amount of capital. The task of companies is to make investments that fulfil the owners' – and ultimately the savers' – required returns.

The financial markets play a crucial role in achieving long-term viability and welfare in an economy. Haldane (2011a) notes that many theoretical and empirical studies have highlighted the welfare- and growth-promoting properties of the markets. Traditional macro-models used to analyse development, design economic policy and estimate its effects are more often than not based on corporate investment being determined in an effective market.

There are, however, several studies that point to problems on the capital market and to the need for changes in order for the financial markets to function well. They suggest that companies are too short-sighted in their investment decisions. By this, they mean that companies value future returns 'too low' and therefore focus far too much on short-term results.

Research has also indicated empirical support for the thesis that companies have unnecessarily high required returns. Neild (1964) ascertained in a study at company level that investment decisions expected full pay-back on investment in 3-5 years while the average length of an investment is 10 times longer. Haldane (2011a) notes that a business study as early as 1972 found that there were required returns of up to 25 per cent. A more contemporary study by PriceWaterhouseCoopers from 2011 asked managers on companies quoted on the FTSE-100 how they valued different return flows. According to Haldane, it indicated a discount rate in excess of 20 per cent.

Michael Mauboussin has pointed out that it is irrational to push up returns by maximising return on equity. "The goal of financial management, after all... is to maximize net present values."<sup>9</sup> Mauboussin took part in a discussion published in the *Journal of Applied Corporate Finance*, which highlighted the need for business leaders to consider their required returns on investment and the fact that they mistakenly tend to believe that high required returns are in the shareholders' interest. Quite the reverse is true, in that they lead to low value growth. Barton and Wiseman (2014) found that fund managers don't act as owners should.

If required returns are too high, in that they don't take shareholders' interest into account, it is a question of market failure. A possible interpretation of the large increase in and level of the return gap shown in Figure 2 for the United States and Sweden is that it confirms the existence of a market failure. When saving in shares is institutionalised to a high degree, in the form of, for example, mutual funds, it is a question of determining the extent to which the chain of players, from saver to corporate investment, succeeds in conveying people's preferences.

Some studies have focused on how share prices are determined. Haldane (2011a), for example, starts with companies' dividends and share prices and ascertains that the stock market is short-sighted, in that dividend is currently valued higher than can be rationally expected. He also shows that there are signs that this myopia increased during the period 1995-2004, compared with 1985-1994.<sup>10</sup>

For this to be seen as a problem, one must assume that people want to be rational in the way the study defines rationality and that the irrational behaviour is the result of a lack of information and knowledge.

Even if the stock market were to function well in the way Haldane has tested, this is not enough to make sure that corporate investment is determined in accordance with the wishes of savers. Those who lead companies set targets for returns and dividends. These need not be in concordance with the preferences that can be identified on the stock market.

Studies of investment decisions and the results for the United States and Sweden in Figure 1 indicate, as mentioned above, that companies have very high required returns. The fact that there are companies who publicise financial targets of 15-20 per cent return on

<sup>9</sup> From Briscoe, Clancy, Mauboussin, Hilal, Ostfeld, Chew and McCormack (2014).

<sup>10</sup> See also Black and Frazer (2002).

equity when borrowing rates are much lower, is in itself a sign of a fundamental defect in the functioning of the capital market.

Long-term return on shares in real terms is around 7 per cent.<sup>11</sup> If one sees this as a measure of savers' required returns on equity, the gap to companies' financial targets can be seen as an indication of the market failure.

If companies don't act in accordance with these signals, but instead set higher targets for returns, it may lead to shareholders questioning the realism of these targets. This can, in turn, lead to savers allowing for a margin because companies' behaviour is not sustainable in the long term. The increased myopia in the stock market noted by Haldane could then be a sign of savers' scepticism about companies' ability to successfully achieve their financial targets having increased, which in turn heightens risk on the stock market.

The problems on the capital market need not, therefore, only depend on a certain type of player. This can be seen as an aggregate of people's perceptions of how the market should work and how it is actually perceived to work. If the market is dysfunctional, it will be difficult, based on prices on the stock market, to determine the underlying preferences of shareholders. Market players quite simply adapt their strategies so that they can survive a dysfunctional market. This includes the fact that there are market participants who are agents and whose remuneration is designed in a way that can reward a perspective that is more short-term than that of the actual saver. This may be a question of both fund managers and business leaders. If they, for example, think that the levels of return on equity are crucial to the market's valuation of the company, they will adapt their strategies accordingly.<sup>12</sup>

### 3. High required returns – background

#### 3.1 HIGH DIVIDEND, SELF-FINANCING AND GROWTH

Let us now look at the factors that cause many companies to publicise financial targets with high rates of return on equity.

Companies have high ambitions as regards their dividends. This is an important reason for the high required returns. Often the aim is to distribute half the profit in dividend. Neither do they wish to turn to the stock exchange to ask for capital via new share issues. The stock exchange has become a place where money is dished out rather than where capital is obtained. During the period 2000-2008, dividends and cash purchases of companies from the Stockholm Stock Exchange amounted to SEK 1,007 billion while initial public offerings (IPOs) and new issues amounted to SEK 246 billion, that is, around a quarter of that figure. Of the IPOs during this period, the state's sale of Telia accounted for nearly a third.<sup>13</sup> The US stock exchanges have also functioned more as dividend-payers than sources of capital.

<sup>11</sup> See, for example, Siegel (1999).

<sup>12</sup> Using Barclays as example, Davis (2016) shows how the market's fixation on return on equity resulted in doubtful values.

<sup>13</sup> See Franzén (2009a).

Based on Federal Reserve statistics, Fox and Lorch (2014) mention that “Net issuance of corporate equity in the U.S. over the past decade has been negative \$287 billion, according to the Federal Reserve. That negative number would be much bigger if we left out financial institutions and their desperate fundraising in 2008 and 2009. Factor in dividend payments, and we find a multi-trillion-dollar transfer of cash from U.S. corporations to their shareholders over the past 10 years.”<sup>14</sup>

The greater the proportion of its profits a company distributes, the less remains for investment and even less will be the scope for allowing the company to grow with the market. By raising the profit, that is the return before dividend distribution, they try to create scope for investment and growth, despite having increased the dividend. Haldane (2011a) ascertains that, on average, dividend in relation to share price rose by two-thirds between the 1980s and the 1990s for shares quoted on the UK FTSE and US S & P.<sup>15, 16</sup>

The option of allowing equity to grow without owners injecting new capital is described by the equation

$$(1) \quad v = REKFS \times (1-t) \times (1-u)$$

where  $v$  is the growth in equity after dividend payments (given an unchanged equity ratio),

$REKFS$  is return on equity before tax,

$t$  is the tax on profit,  $(1-t)$  is what remains of the profit after tax,

$u$  is the share of the profit distributed in dividend,  $(1-u)$  is what remains of the profit after dividend payments.

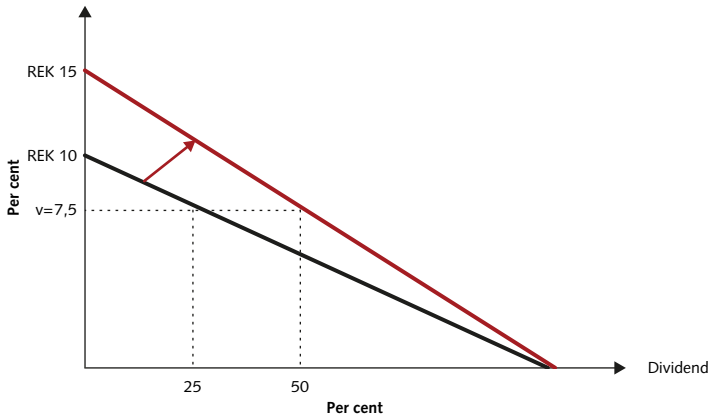
I disregard corporate tax and note that a higher dividend leads to a higher requirement for profitability. A simple example: A company has a profit of SEK 100 and pays out 25 per cent in dividend. It has SEK 75 left to use for growth. If the dividend is raised to 50 per cent, the company must make a profit of SEK 150 in order to grow at the same pace as before. An increase in profit of 50 per cent! This is shown in Figure 3, where return on equity needs to increase by between 10 and 15 per cent if growth in the company's equity is to remain unchanged at 7.5 per cent.

<sup>14</sup> From Fox and Lorch (2012), page 2.

<sup>15</sup> Haldane (2011) provides a brief overview of these issues.

<sup>16</sup> There is no harm in periodically looking for new companies that have low dividend, especially when bubbles are building up. During the dot-com bubble, high liquidity led investors to search for companies who were 'burning capital' at a rapid rate. They had substantial deficits but high expected future profits, see Franzén (2009).



**Figure 3. Increased dividend raises profit demands** $v$  = growth in equity; REK = return on equity

On an efficient capital market, as described in Section 2, the dividend should be based on the owners' required returns adjusted for the investment risk. Companies that have many projects that fulfil the owners' required returns reinvest their profits and/or issue new shares and grow. Those that don't have such good projects, distribute their profits instead.<sup>17</sup>

### 3.2 VISIONS OF RETURNS BECOME REQUIREMENTS

Johansson and Runsten (2005) have described how companies, at the start of the 1970s, set financial targets that were more like visions to start with and not targets that they necessarily believed were achievable. Developments on financial markets with specialised participants and analysts gradually led to targets being scrutinised to an ever-greater extent and requiring fulfilment. As a result, financial targets became more and more like guiding principles. Haldane and Madouros (2010) have made a similar observation regarding targets in the financial sector.

### 3.3 RETURNS AND INFLATION

During periods of high inflation, it is easier to fulfil a certain return target since the real required return is lower. Inflation has fallen, however, over the last few decades but required returns have not followed suit. Real required returns on equity have therefore risen at the same time as real interest rates have fallen!

<sup>17</sup> One reason why dividends grew ever larger was probably that some companies had a tendency to grow into conglomerates, in which the original business idea became unclear.

### 3.4 BONUS AND RETURNS

Company leader compensation systems, designed as a part of corporate governance, also became linked to the fulfilment of return targets.<sup>18</sup> This led to benchmarking also becoming a method for establishing financial targets. The targets started to steer the company's operations even more.<sup>19</sup> Lazonick (2010) has described how this is part of a development towards 'financialisation' of the corporate environment which threatens growth.<sup>20</sup>

### 3.5 BENCHMARKING AND HERD BEHAVIOUR

I experienced this tangibly when I was on the OMX board. Financial analysts were asked what they saw as a suitable target for OMX. OMX was a special company with a mixture of stock exchange and IT operations. There were no other companies with the same mixture. But the analysts deemed that X per cent of operations were like a certain type of company and Y per cent were similar to another type. The proposed target was based on what were normal targets for these types of company. By weighing this together with the organisation's participation rights, a target for OMX was proposed.

The major Swedish banks have acted in a similar way. Nordea established a target at the beginning of the 2000s of a minimum return of 15 per cent. Once this target was met, it was raised to 17 per cent. The target was later changed and became relative. The target was to have a higher than average rate of return.<sup>21</sup> Until the financial crisis of 2008, all the major Swedish banks had set the same relative targets for return on equity. All of them were to have higher-than-average returns.<sup>22</sup> The return fell in conjunction with the financial crisis. They are now talking about required returns in the same way as before the crisis.

When Sweden's pharmacies were privatised in 2009, the state was to set targets for the company that was to continue to be owned by the state, Apoteket AB. The target was at least 20 per cent with reference to the going rate on the market at that time. A similar reasoning lay behind the target of a 15 per cent return on equity that applied to Vattenfall for several years.

Herd behaviour on financial markets is sometimes discussed. This refers primarily to financial investors and fund managers, who behave like each other without having analysed the alternatives in any kind of detail. In my practical experience, I have noted similar herd behaviour in corporate boards, but then it is mostly referred to as 'benchmarking'.

18 See, for example, Klein (2005), Ownership Responsibility Manager at the Third AP Fund, "If the company has publicly communicated financial targets, these should be used in the first instance", onwards from page 8.

19 Since compensation to management executives was linked to the share value, these executives were keen to ensure that financial targets were in line with common thinking on the financial market.

20 See also Pozen (2014) for aspects of this.

21 See Nordea (2004).

22 See Franzén (2005).

### 3.6 RETURN ON CAPITAL EMPLOYED AND MARGINAL TARGETS

There are different ways of expressing return targets. Some companies have chosen to formulate targets for return on total capital employed, that is, borrowed capital and equity added together. Since the lending rate is normally lower than the return on equity, the numerical targets will be lower if they are expressed on the basis of equity. The important thing in this context is that behind the target for return on capital employed is an implicit requirement for return on equity which is higher than the one for capital employed.

Another type of target applies to profit margins on sold products. They can also be described as being derived from a target for return on equity. The margins are often set by management executives comparing them to their competitors and striving to ensure that they were at least as high as theirs. I have met people on the financial market who believe that such companies cannot be criticised for their return targets. They claim that it is just “normal benchmarking” in a market economy. The important thing for my reasoning is, however, to look at which return targets are implied by margin targets.

### 3.7 DIFFICULT TO ADJUST FINANCIAL TARGETS DOWNWARDS BUT EASY TO RAISE THEM

My experience also shows that it is difficult to adjust financial return targets downwards. This is seen as a weakness and there is concern that the stock market might react negatively if a company were to do so. Companies are also proud of having high financial targets. Stenhammar (2012) reasons in this way in his book “Det ordnar sig” [It’ll be alright]. “High returns are a measure of efficiency” and “companies that are not efficient get killed off. Company executives are never satisfied by setting moderate targets based on some kind of theoretical economic philosophy. This would be disastrous ... for Swedish business.”<sup>23</sup>

The reasoning described above may be an explanation for why financial targets have remained high despite both inflation and interest rates falling back. I have met several people, however, who privately think that current required returns are unsustainable and poorly underpinned, but they can't see any way of adjusting them downwards. Certain players say that the company would then find it more difficult to borrow and that rating agencies “demand” high returns. Another problem can be that company leaders often receive bonuses based on returns, in the form of shares in the company, and that they therefore have a very short investment horizon.<sup>24</sup> Due to their considerable dependence on the share price, company executives don't wish to challenge the market.

Östman (2014) has shown that the gap between the organisation, company executive and owners has increased.<sup>25</sup> It is in this context that the targets for high returns on equity have emerged. “The concrete knowledge about manufacturing, marketing and products and the explicit room for manoeuvre had moved to lower levels than before – when group executives were at the helm ... with targets, measures and requirements.”<sup>26</sup>

<sup>23</sup> Translated from Stenhammar (2012) page 373.

<sup>24</sup> From Edman, Fang and Lewellen (2013).

<sup>25</sup> See Östman (2014).

<sup>26</sup> From Östman (2014) page 185.

A professionalised financial function between owners and companies has also emerged. Owners have moved further and further away from companies' operations as a result of saving becoming increasingly institutionalised.

#### 4. Return on capital employed, taxes, equity ratio and interest expenditure

Return on equity can be achieved by borrowing, which creates leverage and increases profitability, depending on at what rate the company can borrow. Equation (2) expresses this relationship

$$(2) \quad REKFS = \frac{1}{1-t} \times \left( RSYSS + (RSYSS - R_L) \times \frac{L}{EK} \right)$$

Where *REKFS* is return on equity before tax,  
*RSYSS* is return on total capital employed,  
*R<sub>L</sub>* is the lending rate,  
*L* is loan-financed capital and  
*EK* is equity.

In this article, I disregard taxation of company profits and thereby assume that the tax is zero. But this does not mean that taxes are insignificant. Depending on how much tax the company pays, the required return before tax increases as the targets refer to net returns. The problems analysed in this article would therefore probably increase if the tax on companies' profits was part of the analysis. A broader analysis would also need to consider the fact that companies can reduce their tax in various ways, for example by channelling profits to tax havens.<sup>27</sup>

Our return equation without tax on equity will then be

$$(3) \quad REK = RSYSS + (RSYSS - R_L) \times \frac{L}{EK}$$

##### 4.1 LEVERAGE, EQUITY RATIOS AND LENDING RATES

When I have questioned high required returns, I have sometimes been criticised for not taking into account the fact that they can be achieved by borrowing and that this will be particularly profitable if interest rates are low. An active risk capitalist thought that it was easy to achieve high returns. It's just a question of finding a good business and then ensuring its funding. He therefore thought that it is easy to achieve a return of 25 per cent and above.<sup>28</sup>

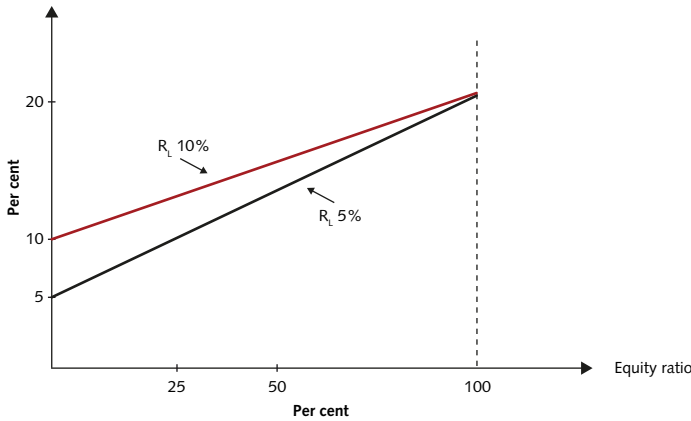
27 One reason for the proposed merger between Pfizer and Allergan may be the intention to move taxation to Ireland, which has a corporate taxation rate of 12.5 per cent, something pointed out by the Swedish business daily, *Dagens Industri* (23 November 2015).

28 On a well-functioning market, this is to be prevented since the risks rise with lower borrowing.

The last term in Equation (3) shows that the higher the borrowing is in relation to equity, the higher the return on equity will be on condition that the lending rate is lower than the return on capital employed. If equity is negligible and the leverage approaches infinity, only a marginal difference is needed between return on capital employed and the interest rate in order to achieve a very high return on capital employed.

Figure 4 shows the relationship between return on capital employed, equity ratio and interest rate level if the starting-point is a target for rate of return on equity of 20 per cent.

**Figure 4. Lower equity ratio and lending rate ( $R_L$ ) reduce the required rate of return on capital employed**  
Return on capital employed  $RS_{YSS}$



It shows that a lowered borrowing rate can reduce the required returns on capital employed, which is the result of high required returns on equity.

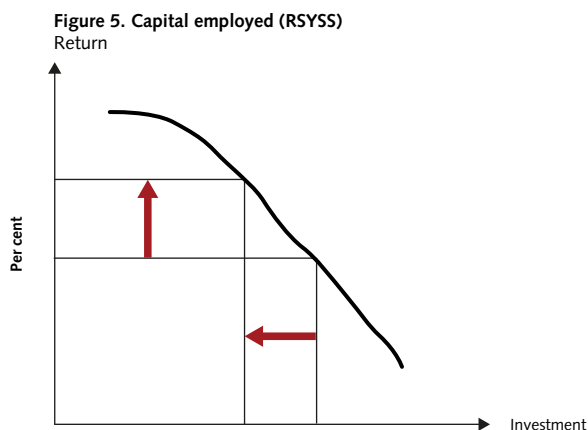
## 5. How do targets for returns on equity function?

Allow us to study how companies can behave in order to fulfil required returns on equity.

### 5.1 LESS INVESTMENT AND HIGHER PRODUCTIVITY

If companies have high required returns on their investment, they will choose investment that gives just such a high rate. Allow us to ignore differences in risk for the time being.

We assume that the higher the requirement for profitability is, the less investment there will be that fulfils the requirement. Figure 5 shows the volume of possible investment ordered by return – capital's productivity.



The higher the required return, the less investment will be made.

We can also ascertain that, everything else being equal, this effect will lead to a rise in the capital's productivity. This is the effect of eliminating investment with a lower return. A higher required return leads people to choose lower capital intensity. This means you get more employees per unit of equity. The productivity of the equity hence increases when investment decreases. Higher required returns on equity may look like the result of an increase in productivity. But high productivity may also be the result of too low a level of investment.

## 5.2 HIGHER BUSINESS RISK

Another way to search for high returns may be to choose higher-risk investment. TeliaSonera's activities in Uzbekistan<sup>29</sup> which resulted in legal disputes, etcetera, and Swedish banks' undertakings and losses in the Baltics in connection with the financial crisis may both be examples of this.<sup>30</sup> Another method that also heightens risk is to increase the leverage via higher borrowing and higher dividend payments and hence a reduced equity ratio. This is easier when there is strong optimism with regard to economic development and especially when it is created by bubbles on the asset market. Strömberg (2012) has pointed out that these problems also apply to the risk capital market. Too high required returns lead to higher risk-taking, which is expressed in terms of higher borrowing.<sup>31</sup>

## 5.3 SELL OFF OPERATIONS

One strategy in the same spirit is to sell off operations. This is attractive, since shareholders have lower required returns on their equity than companies' financial targets, given the valuation of profits made on the stock market. By selling operations to the stock market,

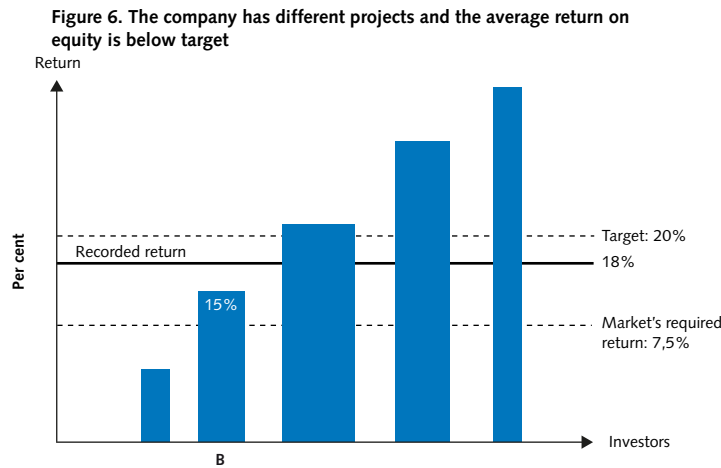
29 See SVT (19 September 2012).

30 See Larin and Bromander (2010).

31 See Per Strömberg (2012).

which pays more than the value recorded by the company, companies can raise their return on equity without it leading to any real improvement for the owners. It may even lead to disadvantages for the owners.

Allow us to assume that the company's required return is 20 per cent, while the stock market's required return is 7.5 per cent. The company reports a return of 18 per cent. Subsidiary operations that yield 5 and 15 per cent respectively have consequently dragged down the recorded return on equity below the set target. This is illustrated in Figure 6. The width of the bars is intended to reflect the volume of the various ongoing projects/ investment.

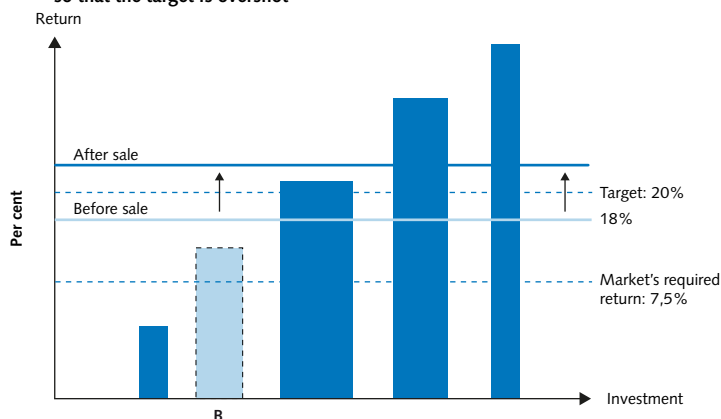


With these assumptions, stock market participants will, all else being equal, be willing to pay double the recorded equity for the operations depicted in bar B and which give a recorded return of 15 per cent. If the company sells off operations, it makes a capital gain. If this profit can then be distributed to shareholders, equity will decrease and the company can achieve its required return on the remaining equity (see Figure 7). But this means selling an operation that more than exceeds the owners' and the stock market's required return. No real improvement has occurred for the shareholders as a group. If we consider transaction costs and bonuses to executives, an unnecessary cost to the company arises.

If we take into account that there may be synergies between the various operations, this behaviour may lead to the return from the sold operations falling to the collective detriment of the owners.<sup>32</sup>

<sup>32</sup> I would especially like to thank Per Strömberg for this view.

**Figure 7. Sale of Project B with a 15 per cent return increases the average so that the target is overshoot**



#### 5.4 AVOID ACQUISITIONS ON THE STOCK MARKET

There is another way of keeping up returns. And that is by avoiding mergers and acquisitions.

Stock market participants have lower required returns than the targets set by the companies. An acquisition leads to excess values being realised and returns fall when these are entered into the accounts. If a company acquires another on the stock market, it must pay a price that corresponds to the market's required return. The price is therefore set so that the return on the acquired company will be significantly lower than the return target set by the company itself. This means that the reported return falls if the acquired company is reported at purchase price. To return to the original levels for returns, rationalisations must be performed that correspond to the difference between the acquired company's market value and the amount the company would have been valued at if the market had, for example, had double the required return.

#### 5.5 LOW RETURNS INCREASE INVESTMENT REQUIREMENTS

If a target for average return on equity is established, it will inevitably have consequences for the requirements for return on new equity – new investments.

The required return on new investments depends on the extent to which the company fulfils the rate of return target to start with, the scope of the investment and how quickly the company executive will achieve its target. If the return is far in excess of the target, one can afford to implement investments to a profitability that is under the set target. The average return can then still fulfil the target. If the return is instead lower than the target, new investment must exceed the target to boost average profitability. If, for example, current profitability is less than the target of 20 per cent, new investment must generate a return of over 20 per cent in order for the company to approach its established targets. This



is one explanation for why the major banks have increased their margins to come back to their return targets.<sup>33</sup>

The relationship between the required return on new equity and the target is

$$(4) \quad REKNY - REKMAL = \frac{REKMAL - REKUT}{g}$$

where *REKNY* is the required return on new equity/projects,  
*REKMAL* is the return target,  
*REKUT* is the return in the current situation,  
*g* is the pace at which equity is renewed during the period in which one wishes to achieve the target.

If equity increases by 25 per cent during the period in which the target is to be achieved and the return is 2 per cent below target initially, return on new equity must be 8 per cent of the long-term target. If the long-term target is 20 per cent, return on new equity must be 28 per cent.

The conclusion is that the implicit required return on investment increases in bad times, when outcomes are below target. This creates a kind of return multiplier which intensifies the struggle to cut costs and increases the required return on investment in times of low demand. If we consider the additional fact that lending rates often increase in such situations, the significance of this multiplier effect will be even greater.<sup>34</sup>

As mentioned earlier, Hall (2015) has ascertained a dramatic rise in the capital wedge in the US after the financial crisis. One reason for this may therefore be that companies try to restore returns so that they achieve the financial targets.

## 5.6 QUARTERLY CAPITALISM

The higher the required return, the less the significance of profits that are far off in the future. This is most clear if we study the present value of future incomes. If the required return is 20 per cent, the present value of SEK 100 in 15 years is SEK 6. If the requirement is instead 5 per cent, the present value would be SEK 48. This means that the return in the period immediately ahead is more important when the company is formulating its strategies and short-sightedness increases the longer it takes to achieve the required return.

A government-appointed committee in the United Kingdom, headed by Professor John Kay, has studied the problems of short-sightedness and why it is difficult for companies to formulate long-term strategies.<sup>35</sup> This commission is very critical of the financial market's

<sup>33</sup> See Finansinspektionen (2015).

<sup>34</sup> Professor Jaen Geanakoplos (2010) has pointed to another psychological factor, namely variation in the willingness to take risks. In times of optimism, very little capital is needed to fund projects and investments. In times of pessimism, the converse is true. A lot of capital and a high equity ratio are required. In a recession, many are forced to sell assets to reduce their debt. This exaggerates the decline in asset prices.

<sup>35</sup> See Kay (2012). Kay does not discuss the issue of financial targets, however.

intermediaries who cost a great deal but whose contribution does not match their cost.<sup>36</sup> The commission emphasises the need for long-term owners who create the right conditions for a long-term industrial strategy.

However, a long-term strategy is achieved not only by owners retaining their shares for a long time. An owner with high required returns lacks a long-term strategy if financial targets reward short-sightedness. Long-term ownership instead presupposes that financial targets are formulated to value future incomes.

#### 5.7 BOOK VALUES ARE ARBITRARY

The company's book value depends to a large extent on its history. If a company has grown without having acquired other companies, its book value depends on when the equity was obtained and the depreciations that have been carried out. Depreciations depend on accounting rules. This means that the profit in relation to the book value can be very high if the company has been reasonably successful. Let us assume that the book value only constitutes half of the company's market value. If the shares in such a company were to be purchased in cash, they would be entered into the accounts at their purchase value. The return on booked equity for the same corporate operations would thereby be cut in half. If own shares were instead used as payment, this effect can be counteracted.

By repurchasing shares, the company can reduce its book value and by doing so increase the return on its book equity. Such purchases have become common and are justified, for example, by the fact that the company is trying to manage its equity efficiently.

A conclusion to be drawn from this is that it is arbitrary and inappropriate for companies with different backgrounds and strategies to have the same targets for returns on book equity. The basis for benchmarking is therefore not particularly stable. Similarly, it is arbitrary to allow the historical rate of return on book value to be the guiding principle for the future.<sup>37</sup> If the company, as a result of its historical development, has a return on book equity of 20 per cent and uses this as a target for the future, it means that the target for new equity and new projects may be extremely high and not necessarily in line with the company's previous strategy.

#### 5.8 EFFICIENCY AND RETURNS

Boards that set high required returns often do so because the company would otherwise not be run efficiently. If the board were to reduce the required return, it would be afraid that there would be less pressure on efficiency. Wages could rise more than it would like and the company executive could increase expenditure and pursue less profitable operations for its own personal satisfaction.

<sup>36</sup> See also Haldane, Brennan and Madouros (2010).

<sup>37</sup> Matts Ekman (2013), ex Deputy President and Chief Finance Officer at Vattenfall, took a low book value as an argument for setting a high return target. The equity was obtained a long time ago and therefore has a low value. He also argues that the target should not be affected by energy prices.

Return on equity is the result of many events and activities. The profit can be explained by the following equation

$$(5) \quad Profit = p \times q - A \times w - R_L \times L + others$$

where  $p$  is the price of the company's goods or services

$q$  is the number of goods

$A$  is the number of employees,

$w$  is total wages to employees,

$R_L$  is the lending rate,

$L$  is the debt.

If the price of the goods were to rise as a result of a change in the exchange rate or if demand for the company's products were to rise, both the profit and thereby return on equity would increase. If the company's target is to achieve a certain return, the scope for bad deals and poor management of the company would increase. It may, for example, lead to the company devoting its time to building an empire instead of sound business activities. Work to render production more efficient can also be pursued less forcefully. Company boards can try to counteract this by increasing the return target and, by doing so, maintain the pressure for change in companies. But if the price rise, or exchange rate change, is not permanent and prices start to fall, required return on investment and a requirement for unplanned rationalisations will increase if the return target is not adjusted downwards.

One way of avoiding this is to set return targets that stretch over very long time periods. But it is difficult to determine what is temporary, cyclical and long-term. In addition, if bonuses to executives are related to the return for short periods, and the executive team's mandate is shorter than an entire economic cycle with potentially large price variations, the consequences of the targets will be even more debatable.

There may be situations when a company is very poorly managed and inefficient. During an efficiency drive, the company executive can increase the return on equity very dramatically. Problems arise if the company sees this as sustainable in the long term and whether it is described as a requirement from the owners and the cost of capital, as well as it not being possible to adjust the targets downwards. The conclusion is that the management of the company must be less rigid and rest on fundamental knowledge about the company's specific situation.<sup>38</sup> In such an environment, there is more scope for long-term industrial thinking, however.

<sup>38</sup> See Chartered Financial Analyst Institute (2006). See also Kruger, Landier and Thesmar (2011) who discuss the mistakes of using a uniform required return.

## 6. The return targets are not the cost of capital

It is difficult to establish what requirements savers have for long-term returns. Household savings are, to a large extent, institutionalised and can be found, for example, in large pension funds. In discussions on pension savings, one talks of entirely different returns than when it comes to companies' financial targets. In the Swedish public pension system, comparisons are often drawn with income indices that describe how the general income level has changed. Public pension funds have targets for returns on savings capital which are around 4 per cent after discounting for inflation.<sup>39</sup> Insurance companies in Sweden also talk about returns on pension savings that are significantly lower than companies' targets for return on equity.

A more direct way of examining the required returns of savers is to look at historical returns on shares. Such studies point to a very long-term return after inflation of around 7 per cent.<sup>40</sup> There are many problems associated with taking such measures as an expression of savers' preferences, especially if one questions the market's efficiency.<sup>41</sup>

### 6.1 LACK OF COMPETITION

Barriers to competition may be a reason to have high required returns. Company owners do not continue to produce until the marginal costs coincide with the price of the product or service. Instead, they allow "excess profits" to ensue. The difference between companies' required returns and the average requirements of savers can then be seen as a measure of monopolistic practices. It need not be a well-founded and sustainable strategy. The important thing is that companies seem to strive for and perhaps find pride in the belief that the company is unique insofar as it can attain a return that is higher than has been achieved historically. If one also considers the fact that companies set targets as part of their herd behaviour ("benchmarking") where all of them are on a high level, it can be interpreted as company executives believe that the industry in which they are active, is generally characterised by a high level of monopolism, historically speaking. Benchmarking for returns and margins also means that companies avoid strategies that lead to falling profitability. This, in turn, leads to more or less deliberate oligopolistic practices.

## 7. The capital market and economic policy

If the returns required by companies are high and investment is low, interest rate policy can stimulate investment by cutting rates and hence required returns on capital employed. How low does the interest rate have to be to sustainably enable a return on capital employed corresponding to that achieved historically over the long term?

Statistics show that the long-term return on shares has been around 7 per cent in real terms. Let us take this as an expression of a long-term sustainable level of return on equity.

<sup>39</sup> See Tredje AP-fonden (2016).

<sup>40</sup> See Siegel (1999).

<sup>41</sup> See Section 2.

Can we obtain a corresponding measure for capital employed? Let us also observe that the difference between the return on shares and yields on long-term government bonds has historically been 3-4 per cent. The costs for companies' borrowing ought to be higher if they obtained funding via long-term bonds. But their funding can be assumed to be shorter term, which reduces the measure for the cost of capital employed. On the other hand, companies' credit ratings are lower, which raises their borrowing costs.

Let us assume that the historical return on capital employed is nominally 6 per cent. We enter this into our Equation (3) and ask which lending rate is needed to fulfil a requirement of 20 per cent return on equity. If we assume that the equity ratio should be 40 per cent, we can conclude that the sustainable interest rate needs to be minus 3.3 per cent.

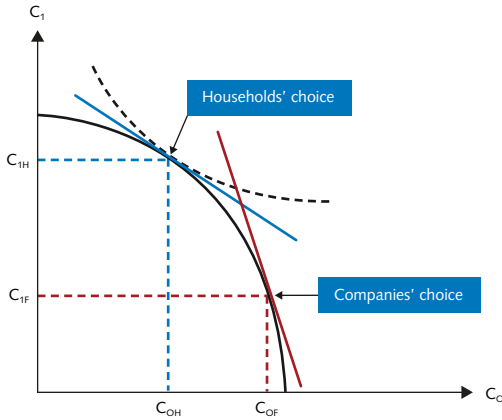
Another possibility for attaining a return of 20 per cent is to have a rate of inflation that is so high that the financial targets approach the historical level of returns on the stock market. But this would assume that the return requirement is not raised in nominal terms due to inflation increasing.

The point of this analysis is not the figure of 20 per cent for the required return. There are companies with higher and lower targets. There is also a risk that the implied requirement for new activities and investments will be raised when companies are struggling to raise their returns. My intention is to show that interest rates may need to be very low or even negative to enable companies to reach their required returns. This may involve difficult trade-offs for economic policy and may require an interest rate conflicting with people's valuation of future welfare.<sup>42</sup>

To illustrate the dilemma arising when there is a conflict between companies' required returns and people's valuation, I use a classic production-possibility frontier. Assume that the participants in the economy exist in two periods. The curve in Figure 8 shows different possible combinations between consumption today  $C_0$  and production tomorrow  $C_1$ . The more households save today, the more they will be able to consume tomorrow. The slope of the curve shows the relationship between consumption in different periods, which is to say how consumption can be increased in the future by – saving – reducing consumption today. This means that there is an underlying investment that transforms goods between the periods. Households' preferences are illustrated by an indifference slope in the figure. In a well-functioning market, the best solution is reached when an indifference curve just touches the production-possibility frontier. At this point, all possibilities for production are being used and there is full employment. The slope of the curve at this point illustrates the relationship between consumption today and consumption tomorrow, which is to say the interest rate that gives the desired solution. It is this solution that would be achieved if the capital market functioned well and thereby reflected people's valuation of the future.

42 Summers (2014) and Krugman (2013) discuss "secular stagnation", in which the real interest rate must be negative, but they do not include the problems of the required return and people's time preference in their analysis. See also Bossone (2015).

**Figure 8. Households want more investment and future consumption**



Furthermore, assume that investments are not made directly by households, but by companies. Assume also that companies do not fully take account of households' willingness to save/invest. Companies therefore set a high required return on equity. A discrepancy then arises between what households wish and what companies do. The red line in Figure 8 shows the interest rate corresponding to companies having higher requirements for returns on equity and capital employed than the savers do. To achieve full employment on the companies' interest terms thus requires that society as a whole must choose to consume more in period zero and save less than households wish.

### 7.1 FISCAL POLICY

One way of reducing saving is to use fiscal policy. Let us assume that the government, in an extremely Keynesian manner, chooses to have people dig holes in the ground and then fill them up. This could be funded by the government issuing bonds that people see as a basis for their future standard of living. This corresponds to the government, in period zero, consuming so that full employment is achieved at point  $C_{0F}$ . The risk will then arise that households will realise that this means lower consumption in period zero. Households save in bonds to be able to consume more in the future. However, the bonds they have purchased from the government and which comprise their wealth do not correspond to any capital build-up. They do not provide any increased production capacity in the period ahead. On the contrary, this is an indication that consumption has been too high. The government therefore needs to increase taxes to redeem loans or write off loans. If the citizens see this risk, they will wish to save even more to get a better future. To counteract this, the government may then increase its consumption and borrow more, which risks leading to a vicious circle.<sup>43</sup>

<sup>43</sup> If the government invests, this problem will decrease, but will not be eliminated. See Section 10.

Turner (2015) deals with the problem by saying that fiscal policy can create expectations that the government must increase taxes and/or reduce expenditure. If people understand this, they will increase their saving to safeguard their future standard of living. Barro (1989) has illustrated this problem with Ricardian equivalence. Turner discusses the situation in Japan, where the sovereign debt at the end of 2014 corresponded to 234 per cent of GDP and where this proportion is continuing to increase due to the ongoing deficit in the central government budget. It seems as though intentions and plans to fix the deficit push down demand. However, the lower the yield is from government bonds, the lower the future burden on the government budget becomes. In addition, if households can be made to believe that the government will keep the deficit for the foreseeable future, they will not need to worry about future tax increases and expenditure cuts. Turner therefore argues that the Japanese government should take interest-free loans from the central bank. However, it can be noted that, by the end of 2014, the central bank already owned one-fifth of the sovereign debt. But, if the economy finds itself in the vicious circle I described above, the low level of demand will be caused by people saving to secure their future standard of living, at the same time as the problems on the capital market will mean that investments are too low to make a good future standard of living possible. This dilemma cannot be solved by interest-free borrowing from the central bank. On the other hand, this could be included in an attempt to increase inflation so that the real interest rate becomes negative. This brings us to monetary policy.

## 7.2 UNCONVENTIONAL MONETARY POLICY

A practical option often used to reduce saving is for the central bank to cut the interest rate to stimulate demand and achieve its inflation target. Monetary policy affects resource utilisation and inflation via several channels. When the central bank cuts the policy rate, market rates charged to companies and households normally follow suit. On condition that prices in the economy are sticky, real interest rates also fall, increasing the incentive to consume and invest. Cutting the lending rate stimulates households, via the substitution effect to save less and borrow more, thereby increasing their consumption. A lower interest rate also has an effect on income, however. Because the return on savings is lower, more savings are required to achieve a certain level of consumption in the future. This acts as a counter-stimulus to consumption. The substitution effect needs to be greater than the effect on income, otherwise monetary policy will have no effect on consumption.

The stimulus to companies to increase their investment is created when the lower interest rate on borrowed capital leads to lower required rates of return on capital employed. A direct effect arises as a result of existing loans becoming cheaper regardless of the company's equity ratio. Another effect is that companies become more inclined to borrow and thereby reduce their equity ratio. A counteracting effect is that companies, as described earlier, may increase their required rates of return as it has become easier to achieve the target rate of return. If, at the same time, households increase their consumption, this will stimulate companies to invest as demand will rise.

In addition, expansionary monetary policy normally leads to a weaker exchange rate, which increases exports and decreases imports. Furthermore, imported goods become more expensive and inflation rises thereby directly via this channel.<sup>44</sup> If the problem that monetary policy is trying to rectify is a global one, however, the exchange rate channel is more difficult to use as measures in different countries can counteract one another.

An interest rate cut also normally leads to an increase in asset prices. The fact that there is more scope for mortgaging assets stimulates both households and companies to borrow more, via the so-called credit channel. Rising asset prices cause people to feel wealthy and increase their consumption.

Most central banks use a short nominal interest rate as their primary monetary policy instrument. Nominal interest rates have a lower bound, however. Recent experience from Switzerland, Denmark, Sweden and Japan suggests, however, that this lower bound is not at zero. This is due to the fact that there are costs attached to holding cash.<sup>45</sup> But the fact that there is a lower bound means that it may be difficult for the central bank to cut the interest rate dramatically in order to stimulate demand in a deep recession.<sup>46</sup> But the more negative the repo rate goes, the less the impact on other rates will be.

Even if the central bank's policy rate has a lower bound, there are other ways of influencing the real interest rate. In various ways, the central bank can try to influence the expectations of households and companies regarding future inflation or interest rates. Current demand can be increased either by lowering the current real interest rate or by creating expectations of future low real interest rates. If the nominal rate is already very low, or even negative, the central bank can cut the policy rate to a low level and announce that it will remain low for a longer period of time. The idea is that if expectations are adapted to the central bank's announced interest rate path, demand will start to rise immediately.

Another way for the central bank to make monetary policy more expansionary when inflation is low and the policy rate close to its lower bound, is to buy different kinds of assets, such as government bonds. When the central bank buys government bonds, the economy can be affected via several channels.<sup>47</sup> The purchases can send a signal that monetary policy will continue to be expansionary in the period ahead. The purchases also reduce the availability of bonds, which pushes their prices and pushes down their yields. In addition, purchases of government bonds can lead to contagion effects on the prices of other assets, via the so-called portfolio balance channel, which contributes to a broader decline in yields. Finally, the purchases can increase the banks' liquidity surpluses in relation

<sup>44</sup> See Hopkins, Lindé and Söderström (2009) for a more detailed account of the monetary policy transmission mechanism.

<sup>45</sup> See De Graeve and Lindé (2015) and Söderström and Westermark (2009) for an analysis of monetary policy when the policy rate has reached its lower bound.

<sup>46</sup> See Alsterlind, Armelius, Forsman, Jönsson and Wretman (2015) for an analysis of how far the repo rate can be cut.

<sup>47</sup> According to a study of the effects of government bond purchases initiated by the Riksbank in 2015, they have helped push down Swedish yields, reduce the yield differential with other countries and weaken the exchange rate. See De Rezende, Kjellberg and Tysklind (2015).



to the central bank. Greater liquidity in the banks may make them more inclined to lend more to households and companies.

Turner (2014) has pointed out that it seems as though financial wealth has to grow much faster than the real economy before full employment can be achieved. This is a kind of “debt-dependent growth”, in which lending, to a very small extent, is used to fund real investment. Turner does not, however, include companies’ investment decisions in his analysis. His proposed solution to the problems is to regulate borrowing and lending more stringently.

There is therefore a risk that a very expansionary monetary policy will contribute to assets being so overvalued as to provoke talk of a financial bubble. The low interest rate means that people think it is cheap to buy assets such as shares and housing and unfavourable to save in interest-bearing forms. High dividends are reinvested and drive up share prices. Asset value rises and encourages even more borrowing. When several players act in a similar way, this contributes to continuously rising prices and increasing elements of financial leverage. Rising share prices are based to an ever-increasing extent on low interest rates and less and less on investment. The risk of a financial bubble is then considerable.

### 7.3 FINANCIAL BUBBLES, LOW INFLATION AND DEFLATION

In my opinion, the effect of economic policy depends on the extent to which it is adapted to people’s preferences, and on the extent to which consumers, savers and owners understand the context they act in and how they interpret and react to previous experiences. Those who have been impacted, at some point, by the negative effects of a revised economic policy may attempt to guard themselves against a similar experience in the future.

A financial bubble could be described as an increase in wealth that gives households the impression that the economy’s production capacity is higher than it actually is. Expressed in terms of Figure 8, they believe that the production-possibility frontier is shifting outwards. In this bubble, they will wish to increase their consumption, and employment will increase. The value of the assets is thus based on a forecast of future price development that turns out to be wrong. In such a bubble, there is also a risk that governments will overestimate the strength of public finances.

Such a financial leverage cycle often continues until some ‘unexpected’ event occurs to trigger the reverse mechanism. People become uncertain and want to realise the increases in value they have achieved. If many act simultaneously, the fall in prices will be heavy. There then arises a downward spiral that spreads throughout the financial system and impacts the real economy. People feel that their future possibilities are contracting. For a highly-indebted player, the spiral of losses can be dramatic. Demand for goods and services falls heavily and unemployment rises. High indebtedness in the private sector can therefore be an indicator of the risk of a financial crisis leading to a deep downturn in the economy. Following such a decline, it can take the economy a long time to recover. One reason for this may be that it takes time to repair the financial system. Another reason is that it may

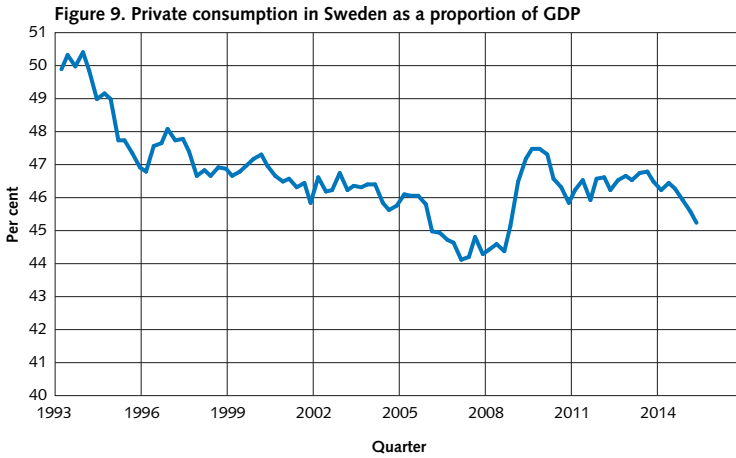
take time to reduce indebtedness in the private sector. Structural deficits in public budgets may also arise in the wake of a financial crisis. In addition, measures to capitalise the banks and restore confidence in the financial sector can contribute towards indebtedness increasing in the public sector. This also means that countries risk getting stuck in a vicious circle. The risk is that high indebtedness in the private sector will impede a recovery in the economy, which, in turn, will make it difficult to reduce debt as a proportion of GDP. Increased indebtedness in the public sector inhibits optimism among companies and households. There is a risk of getting stuck in a situation with high debts and low growth.

A fundamental dilemma arises if, due to shortages on the capital market, fiscal and monetary policy tries to get people to save less than is sustainable over the long term. Confidence in the policy risks being damaged, with the policy becoming part of the problem. To regain confidence and room to manoeuvre, the political system needs to demonstrate that it is not making the same mistakes as before the crisis, which can be difficult to pull off credibly.

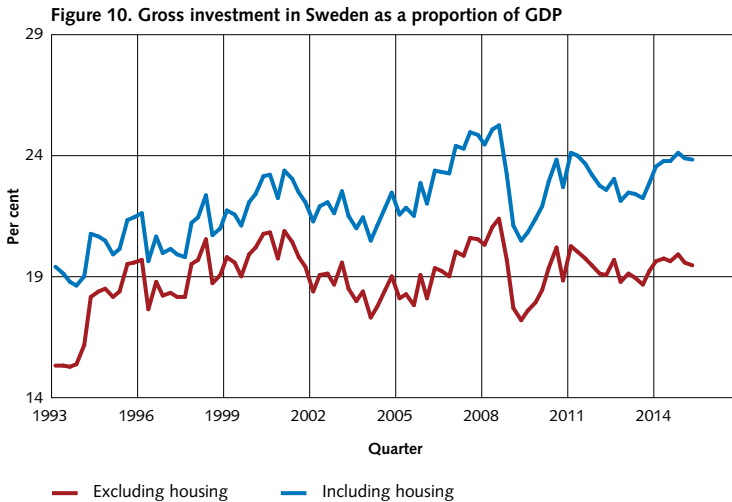
If household and corporate optimism and confidence in economic policy are weak, this may restrain demand and contribute towards sinking inflation. Figure 9 shows that household consumption in Sweden as a proportion of GDP is currently low from a historical perspective, and Figure 10 shows that investment as a percentage of GDP has not increased notably, despite the record low interest rates: the increase in investment is being driven by the increase in housing investment. With an expansionary monetary policy, the central bank is attempting to bring inflation up. The low level of interest rates is restraining interest expenditure for the high level of indebtedness and risks inhibiting the will to reduce debts and contributing to economic imbalances. The question, therefore, is whether low inflation, possibly even deflation, can be seen as the economy's way of satisfying people's desire for a positive return on their saving. In such a case, the view of low inflation and the risks of moderate deflation may need to be nuanced.<sup>48</sup>

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48 Jonsson and Reslow (2015) and Kocherlakota (2010) show, in the spirit of Irving Fisher (1977), that there is a risk that long-term low interest rates will contribute towards inflation being low over the long term. This is a consequence of the so-called Fisher relation, which is a relationship between the real interest rate (which is assumed to be stable), inflation and the nominal interest rate.



Source: Statistics Sweden Household consumption, including non-profit organisations, as a proportion of GDP. Current prices



Source: Statistics Sweden Total gross investment (including investment in stocks) as a proportion of GDP. Current prices

#### 7.4 DEBT DEPENDENCY, REGULATIONS AND MONETARY POLICY

The econometric models used by central banks and others as part of forecasts and analyses are based on the assumption that companies are rational and maximise the present value of future profits.<sup>49</sup> Therefore they do not capture the behaviour I am focusing on. This means that the models, by definition, disregard the fact that the problems arising are due to fundamental shortcomings on the capital market.

<sup>49</sup> The Riksbank’s model RAMSES is an example. See Adolfsson, Laséen, Lindé and Villani (2007).

However, central banks base their decisions both on models and on assessments of factors that are not captured by the models. There is knowledge outside the frames of the models. For example, experience tells us that high indebtedness and high asset prices often precede financial crises and lead to unemployment and serious setbacks for real production. Discussion of the significance of such factors goes in waves. After the dot.com bubble burst at the start of the century, there were economists who argued that the central banks should have conducted a more cautious monetary policy and should, therefore, consider the development of the asset markets in their assessments. The objective need not be to burst a bubble. It may be to counteract or reduce the extent of crises by 'leaning against the wind'.

Considering factors other than those included in a certain model need not conflict with the will to achieve an established and publically announced inflation target. On the contrary, it may result in the completion of the analysis, the improvement of forecasts and the attainment by policy of its targets.<sup>50</sup> But the realisation of the models' limitations may also lead to revisions of both the target and the formulation of the policy. The instruments for regulation, so-called macroprudential policy measures, which are being introduced in many countries, are such a way of developing policy to reduce the risks arising on the financial markets.<sup>51</sup> Such regulations can also relieve the pressure on monetary policy from certain considerations so that it can focus on price stability to a greater degree.

At best, these work if consideration of instability risks is based on an understanding of how they can be observed in models of what drives such risks. This involves an insight into how monetary policy affects these risks. As an example, as I have previously shown, a lower lending rate means that, all else being equal, it becomes easier for companies to achieve and exceed their financial targets. It may even form an argument for them to raise the required rate of return.

In section 7.3, I pointed out the risk of a vicious circle forming if economic policy drives the formation of recurring financial bubbles by failing to note dysfunctions on the capital market. This makes it difficult for people to adjust to economic policy in a rational manner. The level of increase in the capital wedge that Hall (2015) has analysed for the United States and that I have demonstrated is also relevant in Sweden, could, from this perspective, be the consequence of decreased faith in the knowledge that economic policy is based on.

The central banks' analyses and dissemination of knowledge may be at least as important as their actual measures. A well-founded analysis of a shortcoming on the capital market leads to the better management of policy rates and so on. But it also means that understanding of policy increases and that the participants on the market may have reason to reassess their reasoning and behaviour. This is something we will return to.

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50 This means that I question the criticism of the Riksbank's policy that focuses on the deviation of inflation from the inflation target and calculates the effects of it on the basis of a model that does not include complications on the capital market. See, for example, Svensson (2014a, 2014b). See also Andersson and Jonung (2014).

51 See Niemeyer (2016).

## 8. Reassessment of monetary policy

What conclusions can be drawn for Swedish monetary policy from my analysis? Governor Stefan Ingves has pointed out the following:

“Another central problem is that housing prices and household indebtedness are increasing rapidly... we really need two policy rates – one for companies and another, higher rate for households. The Riksbank expects household debt to increase more rapidly than household income in the period ahead, which also increases the need for decisions on measures in policy areas other than monetary policy.”<sup>52</sup>

I myself think that it is important that we proceed on the basis of an analysis of how companies' actions contribute towards economic imbalances when measures that affect household indebtedness are considered. I have tried to show how companies' investment decisions are made in an environment focused on very high returns on equity. This leads to excessively low investment and thereby to lower future welfare than would be possible with a greater capital stock. As long as shortcomings remain in the functioning of the capital market, there is a risk that an excessively expansionary monetary policy that attempts to attain inflation in line with the target and stable resource utilisation will contribute towards financial bubbles and the increasing risk of setbacks in the real economy. I have also attempted to demonstrate that lower lending rates may raise returns on equity for companies, which can be understood as meaning that the established return targets are good and may even be raised. There is thus reason to believe that monetary policy may contribute towards increased imbalances deriving from a poorly-functioning capital market, unless its shortcomings are corrected by other measures.

My intention is not to prove that the policy rate should be adjusted by a percentage point or a fraction thereof. My intention is primarily to enrich the discussion and contribute towards developing the view of monetary policy. A well-balanced policy does not need to mean that the present inflation target is attained in every situation. It should not be seen as a failure but as a sign that the transmission mechanism that transfers interest rate adjustments to inflation has changed. Our possibilities for steering towards the target for inflation have thereby been reduced. Inflation has been low for many reasons with nothing to do with domestic monetary policy.<sup>53</sup> I argue that Sweden's inflation target may need to be reassessed in light of this.<sup>54</sup>

## 9. Comparison with new thinking on the labour market

Economies consist of thinking people. This implies the possibility of reconsidering and changing behaviour when this turns out to have been wrong. Well-functioning learning processes are the strength of a market economy. In crises, many people may need to

<sup>52</sup> See Sveriges Riksbank (2014).

<sup>53</sup> See Andersson, Corbo and Löf (2015) and Andersson (2016).

<sup>54</sup> See Woodford (2012) in the Riksbank's Economic Review for a questioning approach to what central banks can learn from financial crises and Svensson's (2012) comments in the same issue. See also Eichengreen, Prasad and Rajan (2011) and Smets (2013).

reconsider. Not just market participants, but also those with the task of analysing and formulating fiscal and monetary policies.

We had such a crisis period in Sweden about 30 years ago. Wages had long increased far ahead of productivity. This led to high inflation, impaired competitiveness and unemployment. Economic policy tried to cure this by increasing public expenditure and devaluing the krona. Wages and inflation increased. Income policy and price and wage controls were used to decrease inflation. Major devaluations at the start of the 1980s were supposed to lead to a new start with better competitiveness and thereby higher employment. But wages continued to increase too much every year, which contributed towards high inflation. When demand fell, it became evident that we had a large underlying budget deficit. The economic policy had become part of the problem. As it had come to support untenable behaviour, confidence in public finances and the fixed exchange rate had been undermined and room for manoeuvre had decreased.

During the 1980s, several countries abandoned an economic policy that had enabled and exacerbated this counterproductive behaviour. The restructuring of policy led to the rate of inflation falling. In a number of countries, this took place by retaining the fixed exchange rate. Other countries, such as the United States and Canada, chose to prioritise low inflation. The central banks raised interest rates to dampen inflation, which also led to something of a baptism of fire for the labour market when unemployment rose for a period.

These processes are often described simply as an acid test forced by external pressures. But I would like to emphasise that the adjustments, to a significant extent, are due to both people active in economic policy and those considered to be market participants arriving at new insights. It took a long time to develop a policy to change the mechanisms on the labour market and the process moved at different speeds in different countries.

For Sweden's part, the most important change was the one taking place in wage formation. Innovation became necessary on the labour market when everything came to a head at the start of the 1990s. The Riksbank's policy at that point was focused on price stability, and unemployment skyrocketed. New thinking led to wage agreements eventually becoming adjusted to the available economic scope and the inflation target. One reason that the change was possible was the existence of a structure for learning and responsibility in the organisations on the labour market, which led to a cooperation agreement between the unions and employers in 1997, the Industrial Agreement. This contributed towards halting the rise in unemployment and laying the foundation for higher employment over the longer term.

One conclusion is that the earlier and more fundamental a learning process is, the lower the social costs for a reorganisation will be and the more stable the result will be. Another conclusion is that the market's way of functioning sets the boundary for the growth and employment that can be achieved with economic policy.

## 10. Is there a lesson – an equilibrium?

I consider that there is a large risk that policy has become too expansionary from a global perspective. Interest rates are on extremely low levels and public finances are weak in many countries. There is unease over what will happen in the financial markets when interest rates return to normal levels. Similarly, there is unease that expectations of higher interest rates, higher taxes and lower government expenditure will counteract the effects of monetary and fiscal policies. This is dampening demand and inflation and increasing unemployment.

Many emphasise that economic policy, to be successful, must be sustainable and that people must be successfully convinced that its sustainability is credible. But, if the development that the policy achieves due to shortcomings on the capital market does not correspond with what people want, there will be a risk that the economy will enter into a vicious circle with crises, falling demand, unemployment, low growth and deflation. The consequences will be insufficient credibility for the policy and behaviour dominated by uncertainty.

Avoiding such a development will require a policy based on a sound analysis of what lies behind current problems. This is a necessary precondition if problems are to be remedied. A strong analysis provides both a basis for taking measures and a basis for information giving people increased faith in policy. Together, these provide better conditions for policy to be successful.

My opinion is that one reason for the current economic problems is that the capital market does not function and that there are risks that economic policy is contributing to an attempt to fulfil companies' high demands for return on equity. This is why it is necessary to include companies' investment behaviour in the macro analysis.

### 10.1 IMPROVE THE CAPITAL MARKET

An initial key conclusion is then that the capital market needs to be improved. This presupposes that participants and decision-makers realise that high required returns are a problem. The reason why required returns are set so high is a lack of insight among business leaders and intermediaries on the capital market. They seem to believe that high required returns imply high efficiency and some see objections as "some kind of theoretical economic philosophy". Corporate governance is substandard since companies do not act in their owners' interests.<sup>55</sup> As financial analysts note:

"The obsession of investors, asset managers and business leaders with achieving short-term results leads to the destruction of long-term values, a less efficient market and reduced returns on investment. Neither does it help efforts to improve corporate governance".<sup>56</sup>

<sup>55</sup> See Stout (2012).

<sup>56</sup> Krehmeyer, Orsagh and Schacht (2006), page 1.

There is obviously an information and agent problem. Corporate executives are to act as agents for the owners – that is, ultimately, the savers. This means that we need a discussion about how to come to grips with the problems of corporate governance, in which both business and political economists cooperate and engage. There are good ideas on strategies on the stock market and company level in Barton and Wiseman (2014), Haldane (2011) and Posen (2014).<sup>57</sup> The most important corporate governance issue is to ensure that companies' target rates of return correspond with the saver's values.<sup>58</sup> This means that the institutional capital must engage in the fundamental task – to establish companies' financial targets. The faceless capital must take its ownership responsibility.<sup>59</sup>

Resistance to new thinking may also have political grounds. One is that it is important to safeguard the role and freedom of companies. Another is that as long as one assumes that companies work optimally, measures and stimuli will be aimed at other actors, which can be politically attractive. Measures are concentrated on reducing initial salaries, subsidising companies that take on labour, amending job security legislation, reducing corporate taxes and subsidising corporate investment and similar measures to “improve the business climate”. Another reason is that many on the financial market stand to gain from the spotlight not being turned on the issue of target rates of return. With unreasonable and opaque targets, it is easier to defend unreasonable levels of bonuses and salaries. Compensation in the financial sector in particular has increased dramatically.<sup>60</sup>

Banks have a particular responsibility. It is not their responsibility simply because their own required returns make it more expensive for companies to borrow. It is also a question of their high required returns tainting the way they treat their customers. It may lead to them demanding that their corporate customers have high returns, which will make it more difficult for companies that want to have lower and more reasonable targets to borrow.<sup>61</sup>

## 10.2 MORE CAUTIOUS MONETARY POLICY AND MORE MACROPRUDENTIAL POLICY MEASURES

Another possible conclusion is that central banks should be more cautious and avoid overstimulating the market, thereby reducing the risks of financial crises. This may mean, for example, making the inflation target more flexible. Smets (2013) has provided arguments suggesting that monetary policy should take financial stability into consideration. Jonung (2015) has argued that the Riksbank, with regard for financial stability, should raise the interest rate.

Macroprudential policy measures can reduce risk in the financial system and counteract financial bubbles. One important measure would be to require financial companies to

<sup>57</sup> See also Aspen Institute (2009).

<sup>58</sup> Franzén (2009b, 2012a) discusses the effects on business ethics.

<sup>59</sup> See Stout (2012) and Nachemson-Ekwall (2014) for comments on this.

<sup>60</sup> See, for example, Turner (2014).

<sup>61</sup> When designing the capital adequacy regulations for banks, some argued that the capital adequacy requirements should not be raised as this would reduce lending and make things more expensive for bank customers. See, for example, Cassidy (2013). This is due to the fact that banks demand such high returns on equity, an example of how even regulations may be adapted in accordance with companies' required returns.



increase their equity in relation to lending so that the shareholders have to take a larger proportion of the losses.<sup>62</sup>

In Sweden, the low level of interest rates, together with a poorly functioning housing market, have contributed to a substantial rise in household indebtedness and property prices, which heightens the risk of a financial and real economic crisis if economic prospects were to unexpectedly deteriorate. The discussion has therefore begun to focus on the housing market and households' mortgages. Regulations to reduce the loan-to-value ratio have been implemented. Regulations forcing lenders to amortise their mortgages will soon be introduced. These are measures that will inevitably have an impact on income and wealth distribution as well.

A gradual reduction of households' right to deduct a percentage of their interest expenses from tax is also being discussed, aimed at dampening household borrowing and rising property prices.<sup>63</sup> Such a change could, however, disrupt the symmetry between deposit and lending rates in the tax system, as pointed out by Persson (2014). Another alternative, which does not affect symmetry, is to reintroduce a real estate tax, taxing the capital value of properties. The effect of such measures depends in turn on how economic policy reacts to the tightening of households' demand and investment that may ensue.

### 10.3 EXPANSIONARY FISCAL POLICY

Another option is to relieve the burden on monetary policy by pursuing a more expansionary fiscal policy. There is scope for this in Sweden, but in many countries it is very limited. A fiscal policy focusing on investment and capital formation would be a natural conclusion based on the above analysis. In a theoretical analysis, it can be claimed that fiscal policy should help to implement the investment that would have been implemented by companies on a well-functioning capital market. This would necessitate a substantial review of the privatisation policy pursued in a number of countries and reappraisal of our opinions on government aid. In practice, the public sector could start competing with the private sector and by doing so forcing the capital market to adapt. I wish to stress that this is a theoretically possible conclusion. There are a number of objections to it, since it would lead to more state-owned enterprise with all its well-known problems. But such analysis may at least encourage a reappraisal of privatisation strategies, which could help find a solution to the main problem.<sup>64</sup>

Expressed in more neutral terms, greater public investment which increases possible future production and welfare may be a reasonable way of tackling the problems of low corporate investment. One should remember, however, that it will not be adequate substitute for private investment.

<sup>62</sup> See, for example, Admati, Hellwig and Pfleiderer (2011), Admati and Hellwig (2011).

<sup>63</sup> See, for example, OECD (2015).

<sup>64</sup> Then the Minister for Financial Markets Peter Norman initiated a review of the financial targets for state-owned companies, which resulted in a reduction in required returns, see Swedish Government Offices (2012). He hoped that this would serve as an example to private companies, see Dagens industri (2011a). This was seen by some as an attempt at central governance by the state, see Dagens industri (2011b). Franzén (2013) commented on this.

## 11. A look into the future

Economics is about finding ways of making the economy operate so that results correspond to people's expectations about the future. It is not just about trying to achieve an inflation rate in line with the target and full resource utilisation in the short term. There is tendency among economists, however, to avoid problems that cannot be solved using the traditional tool-box. Axel Leijonhufvud (2010) has claimed for a long time that economists neglect their most important task – namely to study what happens in dysfunctional conditions when the economy ends up outside the normal corridors where the self-healing powers are not active enough. Assar Lindbeck (2010) has argued that the models used don't show how "normal financial regimes" develop into "crisis regimes".

I believe that there is plenty of evidence to suggest that the global economy is in a crisis regime largely caused by a poorly functioning capital market. Because economic analysis has not explicitly included the capital market, economic policy in several countries has tried to provide for too high required returns. It is difficult to accommodate required returns of 15-20 per cent in economies that are only growing by a few percentage points. The attempt to maintain growth and inflation has, as I see it, led to monetary policy becoming too expansionary and making it difficult to gain a clear picture of the value of assets and liabilities. Monetary policy can of course be complemented by macroprudential policy measures but monetary policy cannot entirely disregard financial stability. There is unease about both lower and higher interest rates. There is unease both about a continued budget deficit and about the fact that public finances are being consolidated. There is a discussion on the need for write-downs of governments' liabilities and how this impacts financial companies and public finances.

Getting out of this crisis regime requires many measures that are based on an analysis that includes the role of companies on the capital market. This also increases the prerequisites for policy to be understood and received in the right way. This reduces uncertainty.

I would like to see political economists, in partnership with business economists and behavioural scientists, study how companies work in practice. It is time to analyse expectations and behaviours and discuss what is rational and compatible with long-term stability and to promote reform of the capital market so that it serves the interests of savers and society. It also means that a review is needed of the role of financial intermediaries, as discussed by Kay (2012).

This does not mean I distance myself from Keynesian stimulus policy. But it must be placed in its context. The room for manoeuvre for fiscal and monetary policy is not limitless. Consequently, it is important to consider the problems on the capital market. But most of all, it is of central importance to create the prerequisites for correcting the market failure that is the root of the problems through analysis and insight.

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