

Inflation in Latvia: causes, prospects and consequences

A BICEPS Report

by

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Abstract

This report is the second in an annual series produced by BICEPS and SSE Riga on macro policy issues. The 2007 report is again on inflation but this time focusing only on Latvia. The inflation problem in Latvia has not gone away and if anything has intensified since early 2006 to the extent that the Latvian government was forced into action to set up a working group on inflation which eventually published an anti-inflation plan in early March 2007. The aims of the 2007 report include: to examine the most recent developments in consumer prices in Latvia and link them to developments in producer prices and wages and to make an assessment of the likely future course of inflation in Latvia; to propose and outline a framework for analysing macroeconomic policymaking in Latvia; and to examine the likely impact or effectiveness of the anti-inflation plan.

While it is well known that consumer inflation has been rising again in early 2007, reaching a 10 year high of 8.9% in April, the report draws attention to the accelerating pace of both wages (32.8% growth in the first quarter of 2007) and producer prices (which have been rising at between 16% and 18% in early 2007). We see wage growth as feeding into producer prices after a lag of approximately 15 months and this in turn feeds into export prices entailing a loss of competitiveness. The analysis of price and wage developments suggests that the inflation problem cannot be addressed separately from the imbalances in the labour market and neither can it be addressed separately from the imbalance in the external sector. Moreover, the recent surges in producer prices and wages point to further inflation in the pipeline and to the possibility that the Latvian economy has shifted from a position of simple overheating to something more serious in structural terms.

The analysis of inflation as such is followed by a proposed framework for policy analysis based upon the classic economic policy work of Tinbergen and its application to open economy macroeconomics by Swan. The Swan diagram is used to characterise Latvia's economic policy problem in terms of internal and external balance. Evidence is provided on recent developments in export and import volumes as well as on real effective exchange rates which suggests the rapid emergence of a severe external imbalance. Since the internal situation is universally acknowledged as characterised by excess inflation Latvia is firmly located in the Deficit/Inflation zone of the Swan diagram and moreover with an uncompetitive real exchange rate.

Applying the Swan diagram framework to the government anti-inflation plan reveals that all the main proposed measures are equivalent to fiscal measures. This has the consequence that the plan can only generate a larger or smaller contraction of domestic demand depending on the severity of the fiscal contraction. This in turn means implementing the plan cannot simultaneously achieve acceptable inflation and growth together with external balance. Thus Latvia remains on the horns of a Tinbergen policy dilemma – by choosing to remain on the existing peg to the euro it has too few instruments to achieve its policy targets. Through a policy of 'neglect' the government has arrived at a situation where all realistic options will be painful.

1 Introduction

In our May 2006 inflation report we concluded about the underlying causes of renewed inflation in the Baltic states:

“we observe overheated labour, goods and property markets all of which interact to generate accelerating inflation”.

In Latvia, the focus of this year’s report, a year or so on nothing has changed to alter that opinion except that inflation has worsened and the government finally acknowledged the problem in December 2006 and in March 2007 came up with its anti-inflation plan. Perhaps too we are seeing signs that the property market boom is over.

In this report we have the following aims:

- to examine the most recent developments in consumer prices in Latvia and link them to developments in producer prices and wages
- to make an assessment of the likely future course of inflation in Latvia
- to propose a framework for analysing macroeconomic policymaking in Latvia
- to examine the likely impact or effectiveness of the anti-inflation plan

The main messages are the following:

- the linkages between wages, prices and price expectation suggest that there is considerable inflation already in the pipeline and that inflation is likely to increase further in the short to medium term
- the anti-inflation plan is a step in the right direction but could/should have been introduced a year ago or earlier
- the anti-inflation plan does nothing to address Latvia’s external imbalance
- the failure to address the external imbalance is especially unfortunate because the evidence suggests that Latvia has experienced a rapid and continuing deterioration of its international competitiveness since about mid-2005

2 Recent inflation developments in Latvia

The headline in Diena, Latvia's biggest newspaper, on 12 April 2007 read "March inflation 8.5% - shocking"¹. Since then with an April 2007 year on year rate of 8.9% Latvia has reached its highest inflation rate for exactly 10 years² and inflation remains top of the economic-political agenda.

It is often said that a week is a short time in politics. Similarly, a year may be a short time in economics: It is only a year ago³ that we wrote in the predecessor to this report that "*Latvia has so far not publicly deviated from its plan to adopt the euro in 2008 but with Latvian inflation the highest in the EU and way above the Maastricht level early euro adoption is increasingly unlikely*". By now those plans are indeed history and the debate is about euro adoption in 2010, 2012 or even later⁴.

This section will show a) that inflation is on an upward trend and b) is very likely to continue this trend in the immediate future and c), even more worrying, there is huge price pressure from domestically produced goods and this is likely to continue due to the current massive surge in wages. It also has implications for competitiveness and thus for exports, imports and the current account and this will be addressed in section 3.

Figure 1⁵ reports the typical measure of inflation namely year-on-year increases in the Consumer Price Index (CPI). The data is monthly and is shown since January 2001 thus including the successful disinflation policy⁶ pursued since fixing the lat in 1994. The current surge in inflation is the result of (so far) 6 months of consecutive increases (from 5.6% in October 2006 to 8.9% in April). The only previous periods of such long sustained increases were January 2003 – July 2003 (also 6 months and where inflation rose from a very low base of 1.4% to 3.8%) and September 2003 – May 2004 (8 months of consecutive increases; from 3.1% to 6.2%).

¹ In Latvian: "Marta inflācija 8,5% - šokējoša".

² May 1997 reported a 9.0% y-o-y inflation rate.

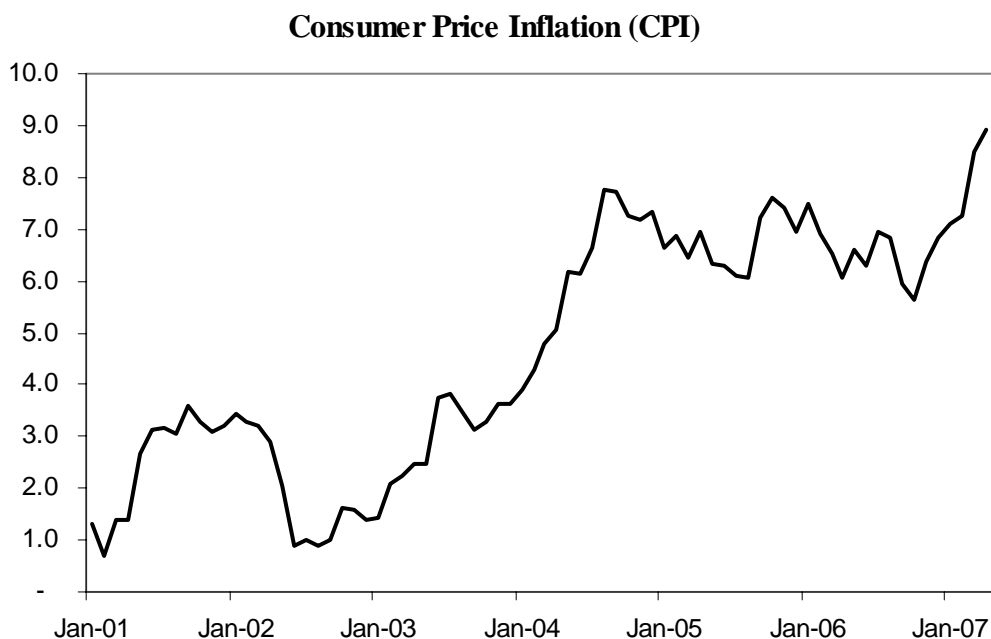
³ Vanags and Hansen (2006).

⁴ It should be noted that the inflation criterion is currently the only Maastricht criterion Latvia fails to fulfill.

⁵ All Figures in this section are based on data from CSB, the Central Statistical Bureau of Latvia.

⁶ In June 2002 inflation reached 0.9% y-o-y, the lowest recorded value. Inflation was below 2% during April 2002 – May 2003.

Figure 1: Inflation, y-o-y, January 2001 – April 2007, monthly data, Latvia



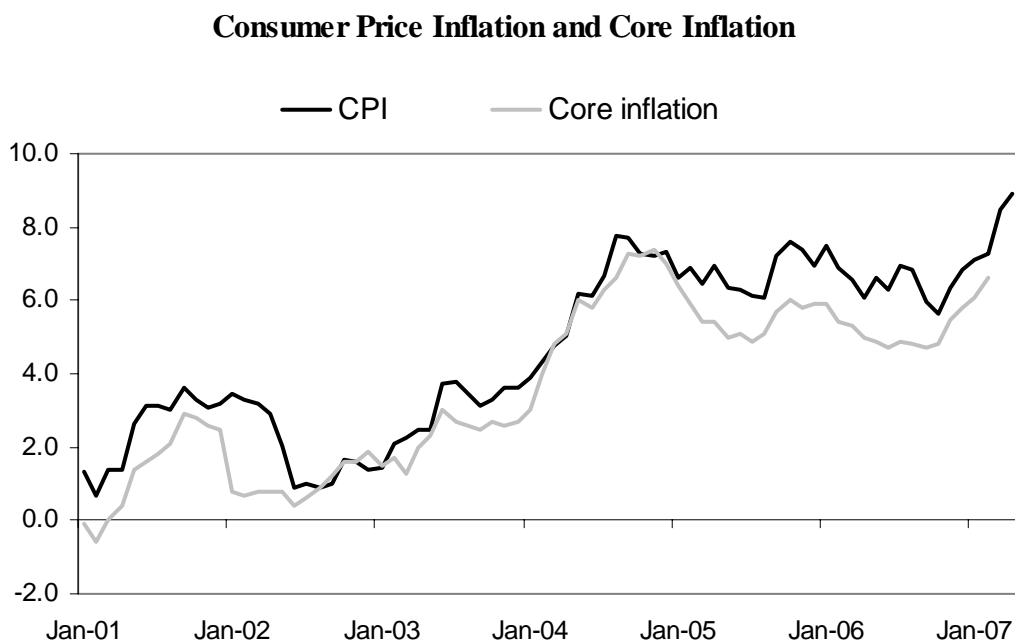
These increases are well explained⁷ by e.g. exchange rate developments (appreciation of the euro, thus depreciation of the lat, thus higher import prices), changes in administrative prices and, for the latter, widespread expectations of higher prices due to EU accession (see e.g. Benkovskis and Paula (2007) for a comprehensive survey) which seemingly made it easy for firms to charge higher prices. The latest surge in inflation can neither be blamed on a low base, EU accession or on unfavourable exchange rate developments (as the lat is now pegged to the euro). Rather, it is the result of overheating in the labour market as well as of higher inflation expectations. Latvia today is a country with substantial inflation and people know this and factor it in to wage demands⁸, which in turn add to the production costs of firms and end up in higher prices.

Whereas CPI inflation is the relevant measure for consumers, core inflation is more relevant for policy makers as it excludes prices that are affected by administrative decisions (regulated prices), by external factors (fuel prices) or by seasonal or weather factors (prices of unprocessed food). It should thus provide a “purer” picture of price pressure.

⁷ See again our previous inflation report (footnote 3).

⁸ See again Benkovskis and Paula (2007).

Figure 2: Y-o-y, January 2001 – April 2007, monthly data, Latvia



Looking at Figure 2, however, one sees that core inflation does not deviate much from CIP inflation and it can be concluded that the two are largely driven by the same factors.

A closer look at the development of producer prices is even more revealing. The Producer Price Index (PPI⁹) measures the development of prices of most goods produced in the country. The major difference between CPI and PPI is that the latter excludes imported goods as they are obviously not produced within the country¹⁰. Imported goods are very important for CPI here since imports account for over half of Latvia's GDP. As can be seen from Figure 3 PPI inflation has been surging much more dramatically than CPI inflation.

⁹ Please see a more detailed definition from the Central Statistical Bureau at: <http://data.csb.gov.lv/DATABASEEN/ekfin/Annual%20statistical%20data/07.%20Prices%20and%20consumption/ppi.htm>

¹⁰ PPI also mainly records the development in goods prices, thus not in services.

Figure 3: PPI inflation, y-o-y, January 2001 – April 2007, monthly data, Latvia

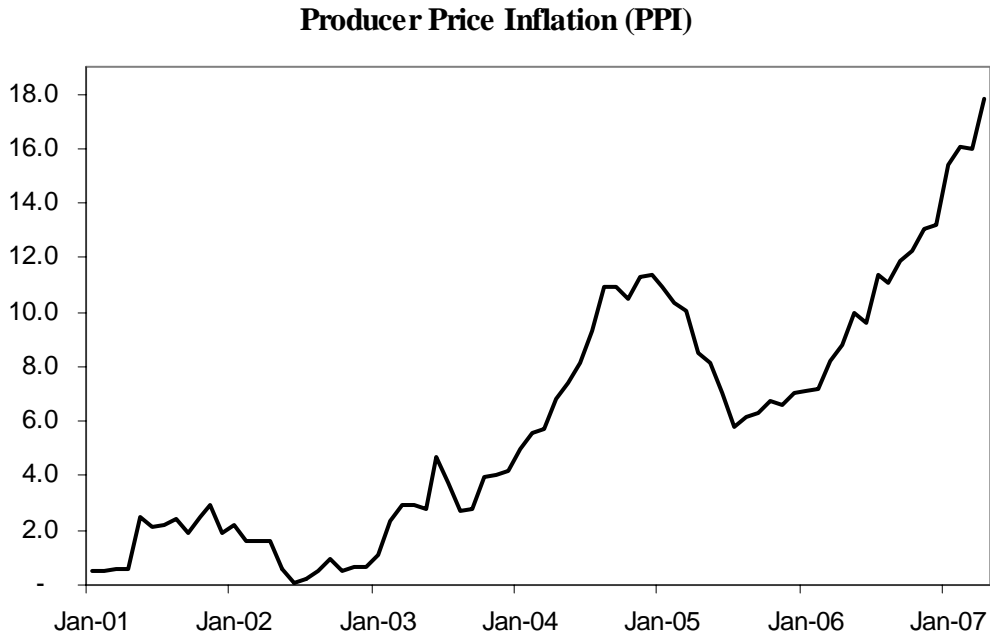
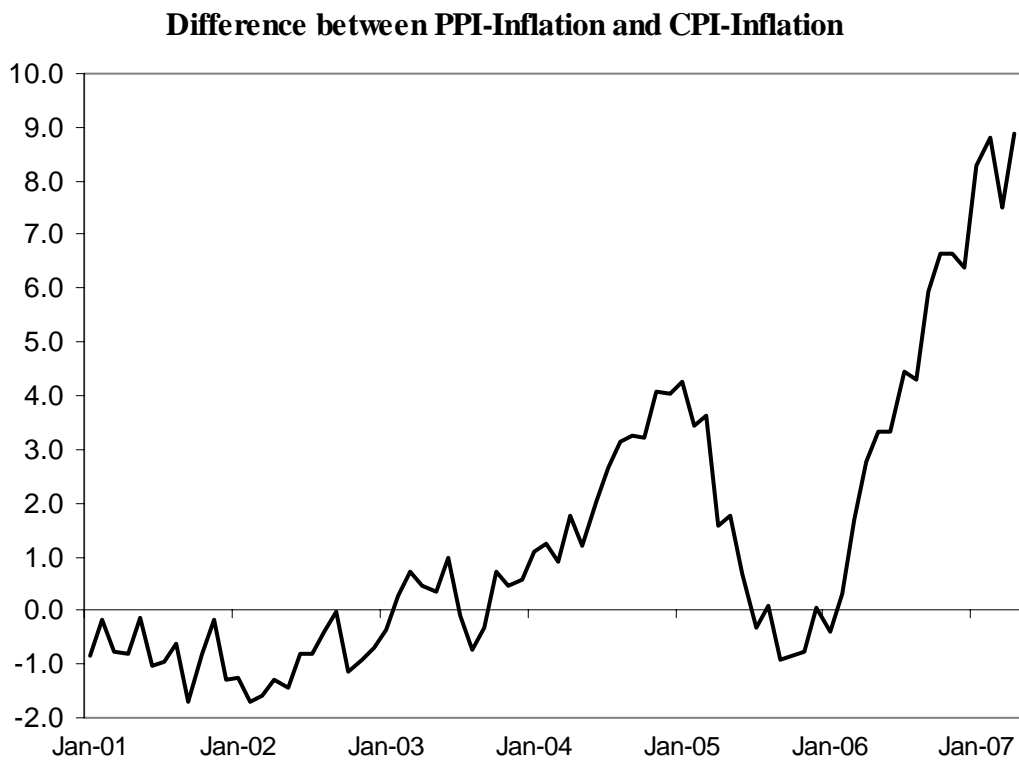


Figure 4: Y-o-y, January 2001 – April 2007, monthly data, Latvia

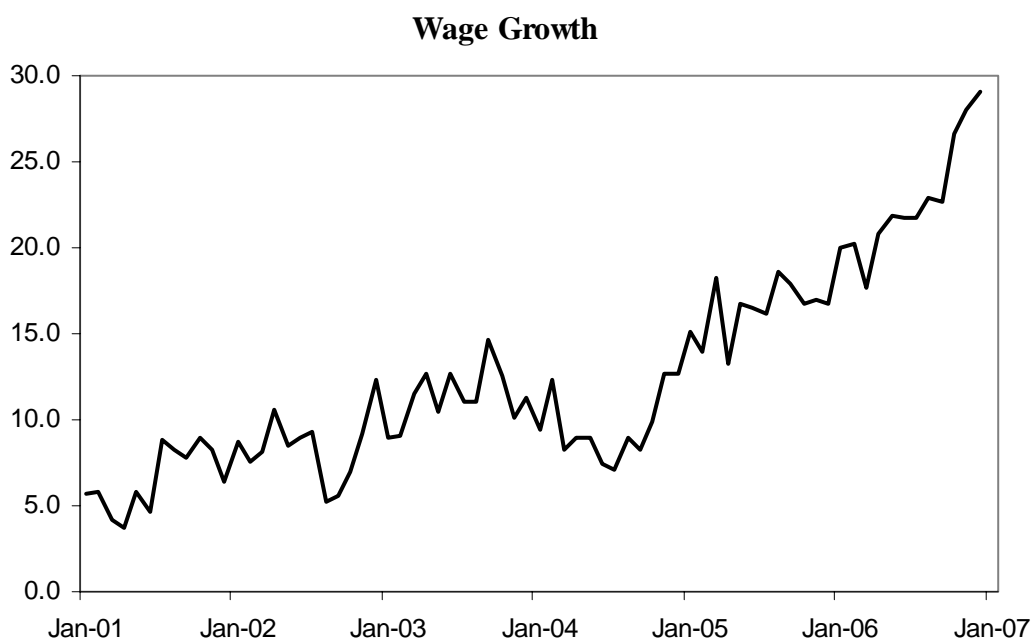


This different development is stressed in more detail by Figure 4 which records the simple difference between the two. Since the two share many elements one will often observe similar fluctuations in the two (if domestic and foreign inflation rates are similar) but it is clearly visible that the two have become increasingly detached over the past 15 months or so. Inflation in domestically produced goods is very high indeed, now approaching 20%. CPI inflation, though at its highest for a decade is thus kept down due to low inflation in imported goods.

This should raise eyebrows when considering competitiveness – the price development of foreign produced goods is considerably below the price development of Latvian produced goods.

As argued before we strongly believe that inflation is being affected by higher expected inflation which workers factor into their wage demands and which they increasingly are successful at given the very tight labour market.

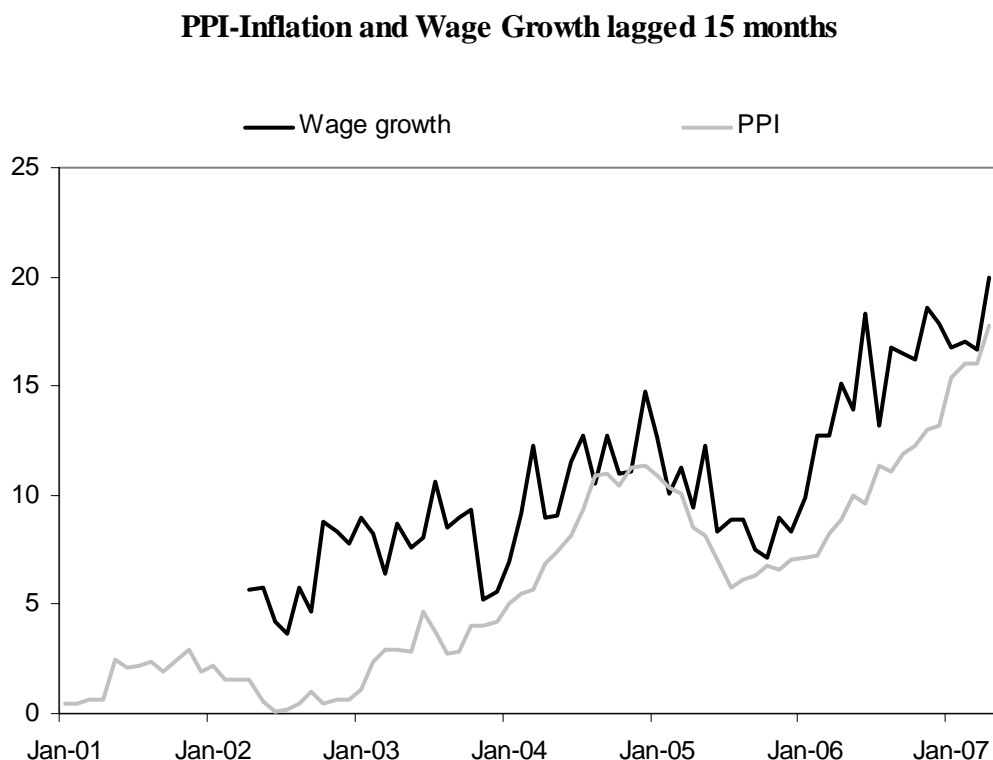
Figure 5: Wage growth, y-o-y, January 2001 – December 2006, monthly data, Latvia



The tightness of the labour market is well illustrated by the development in wage growth which, as seen in Figure 5, has also been very dramatic recently. Monthly figures for 2007 are not available at the time of writing this report but the wage increase y-o-y for the first quarter of 2007 reached a staggering 32.8%, far ahead of productivity growth thus implying more inflation to come.

This latter point is well illustrated by the slight manipulation of wage growth and PPI inflation in Figure 6. Here the wage growth series has been moved 15 months to the right, i.e. PPI growth for a certain period, say, December 2006 is matched with wage growth of September 2005 etc.

Figure 6: Y-o-y, January 2001 – December 2006, monthly data, Latvia



The high degree of similarity (correlation) in the movement of the two graphs is quite striking and suggests that wage growth, representing additional costs of firms, is passed on in the form of price increases with a time lag of around 15 months. It is in no way surprising that there is a time lag between the emergence of higher costs and their realisation in higher prices although the exact length of the lag may be a matter of further research. Econometric tests reveal, however, that one can indeed conclude that there is a delayed impact from wage growth to PPI growth^{11, 12}.

The implication is quite sinister: The current surge in wages has still not shown up fully in inflation

¹¹ Formally this was tested using the Granger causality test. That wage growth Granger causes (influences) PPI growth was significant at any reasonable level of significance.

but we should expect it to do so later i.e. PPI inflation is very likely to increase and with it to some extent CPI inflation, too. If this is believable, inflation will thus rise before the government's anti-inflation plan may kick in and dampen inflation.

From this section we conclude four things:

a) Even this simple analysis shows that the inflation problem cannot be addressed separately from the imbalances in the labour market. As the next section will demonstrate the inflation problem cannot be addressed separately from the imbalance in the external sector either.

b) The role of expected inflation and its impact on wages and thus on inflation should receive more attention from policy makers as it seems to be an important source of inflation.

c) The recent surges in wage growth and PPI growth are worrying – they indicate more, not less, inflation ahead.

d) The recent surges in wage growth, PPI growth and CPI growth are also worrying in the sense that they seem to indicate a shift in the economy from simply overheated to potentially structurally imbalanced.

3 An analytic framework for macroeconomic policy making in Latvia

Many commentators on the recent development of the Latvian economy have noted that it has been characterized by the emergence of 'imbalances'. For example Ilmars Rimsevics, Governor of the Bank of Latvia, in his April 2007 notes on "Recent Economic Developments and Banking in Latvia"¹³ remarks on the emergence of "growing economic imbalances as suggested by the key macroeconomic indicators: persistently high inflation, large current account deficit, and rapidly growing external debt".

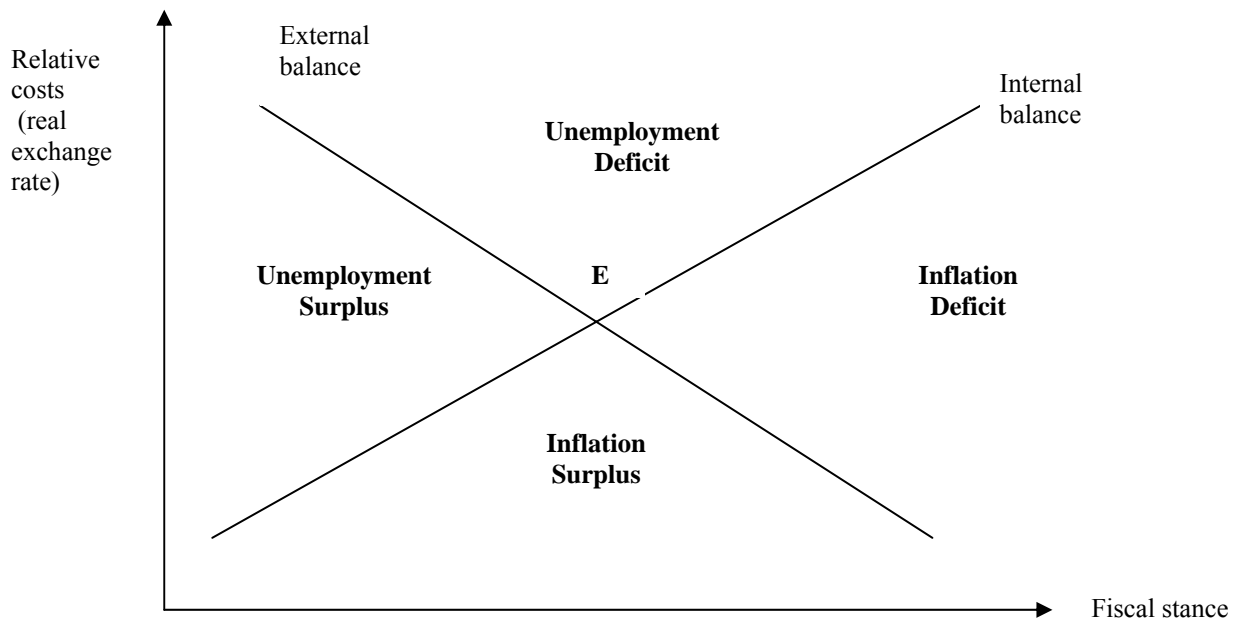
¹² A similar relationship between wage growth and CPI growth was not confirmed. This can be explained by the high share of import prices in CPI. These are obviously not influenced by the development of wages in Latvia.

¹³ See <http://www.bank.lv/eng/main/all/sapinfo/presrunas/reced/>

In the same notes the government anti-inflation plan is welcomed by the Governor who says “if consistently implemented, the plan could prove sufficiently effective to mitigate Latvia's macroeconomic development risks in the coming years”. We certainly agree that consistent implementation is a necessary condition for the plan to prove effective, whether it is sufficient is another question. In order to examine the nature of Latvian imbalances and the efficacy of the anti-inflation plan it is useful to use an analytical framework of economic policy making dating back to the pioneering work of Tinbergen (1952). Tinbergen analysed the implications of the number of targets and instrument for policy making. In particular, Tinbergen showed that if there were fewer instruments than targets then it is likely that the simultaneous achievement of the desired targets will be impossible.

The Tinbergen framework was further developed by Swan (1963) specifically for the purpose of macroeconomic policy analysis in an open economy with a fixed exchange rate and has been extensively used ever since. The core analytical construct is the Swan diagram. This diagram is reproduced below:

Figure 7: Internal and external balance (the Swan diagram)



In the Swan diagram (Figure 7) the economy is characterised by two sectors – an external sector and a domestic sector. Equilibrium in each sector depends on two variables – relative costs or the real exchange rate¹⁴ and domestic demand where this is supposed to depend on the fiscal stance¹⁵. The external balance curve slopes downwards from left to right because a high real exchange rate has to be compensated by low domestic demand (ie a tight fiscal stance) in order to achieve the desired external balance. On the other hand in order to achieve internal balance a higher real exchange rate has to be compensated by higher domestic demand or a looser fiscal stance.

The two curves divide the space into four zones each representing different combinations of Surplus/Deficit and Unemployment/Inflation. Simultaneous internal and external balance occurs at point E and the Tinbergen insight was that in order to achieve point E it was necessary to have two independent policy instruments.

It is generally assumed that a country would wish to achieve both internal and external balance, where these are typically defined with respect to the particular circumstances of a given country. Thus, in the Latvian context internal balance might be defined in terms of an inflation rate that satisfies the Maastricht criterion combined with something close to full employment or a sustainable rate of growth. External balance might be defined in terms of the sustainable medium term level of the current account. For an emerging market economy such as Latvia external balance could be consistent with a sizable current account deficit, but one that is regarded as sustainable in terms of capital flows.

Where does Latvia stand in terms of the diagram? What does the anti-inflation plan do to correct current imbalances in Latvia? The first question is addressed in Figure 8 and the second in the next section.

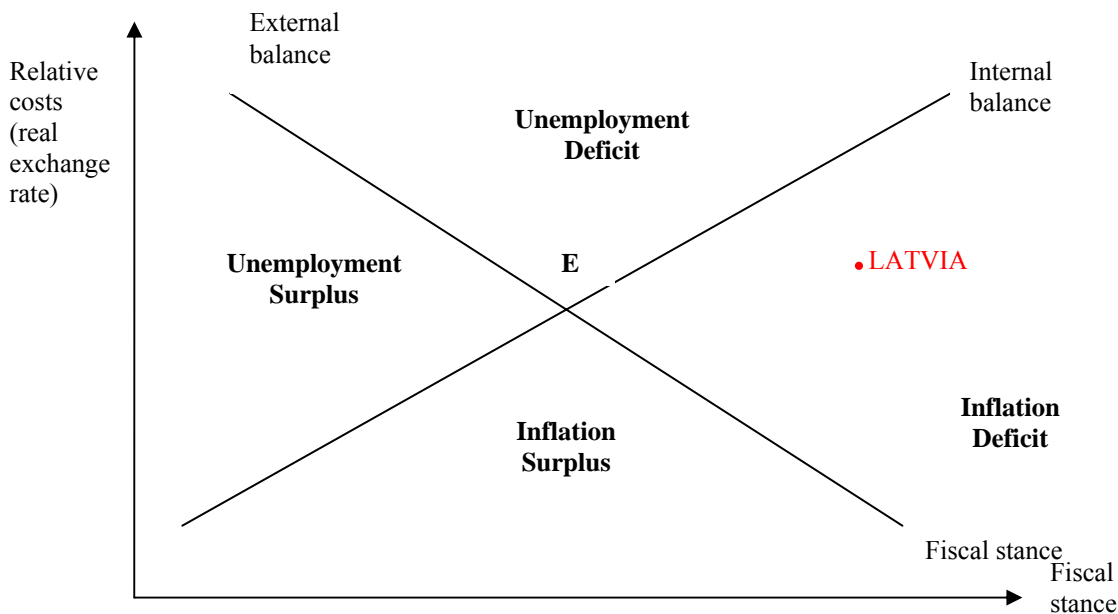
There is surely universal agreement that current Latvian inflation is higher than desired and so Latvia must lie below the internal balance line in Figure 8. In terms of external balance it is harder

¹⁴ The real exchange rate measures the relative price of domestic to foreign goods measured in a common currency. So a rise in the real exchange rate indicates worsened international competitiveness.

¹⁵ Fiscal stance here should be understood to represent all the instruments which the authorities may use to control domestic demand. Thus the budget position is part of the fiscal stance but in the Latvian context measures to control credit should also be included.

to come up with a precise figure but Latvia's current account deficit of 21.3% of GDP in 2006 surely cannot represent a sustainable position. Only 10 countries in the world have higher 2006 current account deficits than the Latvian one and most of them are small island economies with populations of less than 1m and some as low as 40 000¹⁶. So, we surmise that in terms of external balance Latvia's deficit is excessive and hence Latvia lies above the external balance line. In other words Latvia lies in the Inflation/Deficit zone of the Swan diagram.

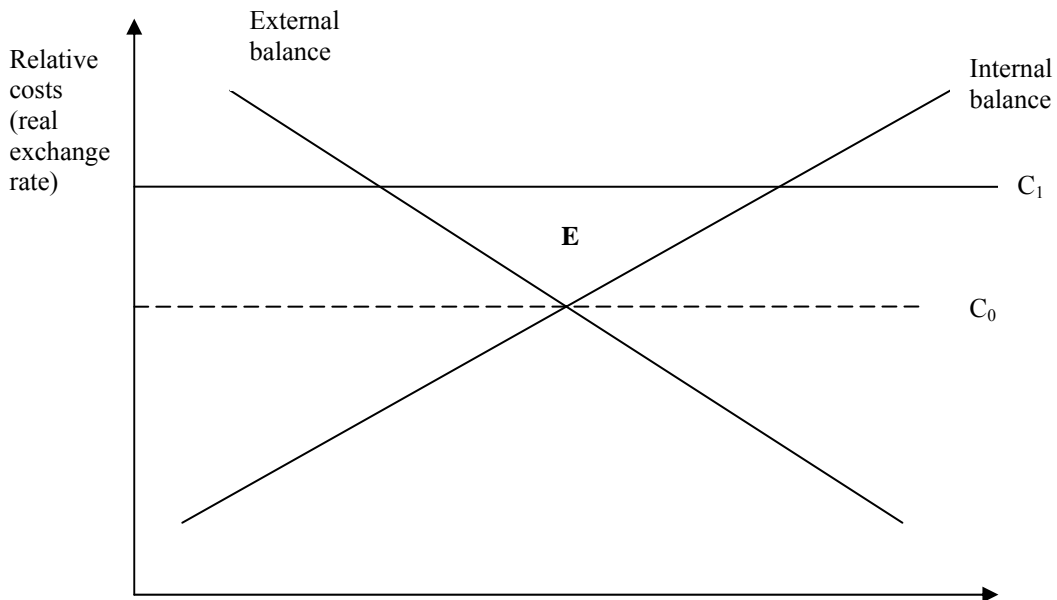
Figure 8: Where is Latvia located in the Swan diagram?



However, this still does not completely define the situation facing policy makers. The appropriate policy response also depends on where exactly in the Inflation/Deficit zone the Latvian economy is located. More precisely, the issue is what is Latvia's level of international competitiveness as measured by relative costs or the real exchange rate? In terms of Figure 9 below this means – is it at or below the level indicated by the dotted line C_0 , which represents the equilibrium level of the real exchange rate or is it at a level such as C_1 , which represents a higher than equilibrium real exchange rate? We argue that Latvia is located at a competitiveness level such as C_1 and arguably that the situation is worsening i.e. the real exchange rate is rising.

¹⁶ The 10 economies together with current account deficits are Iceland with a deficit of 26.3% of GDP, Sao Tome and Principe (62.2%), Seychelles (23%), Kiribati (37.9%), Maldives (36.5%), Grenada (24.2), Guyana (28%), St Kitts and Nevis (28.2%), St Vincent and the Grenadines (24.5%) and Solomon Islands (22.8%).

Figure 9: Where is Latvia's level of competitiveness in the Swan diagram?

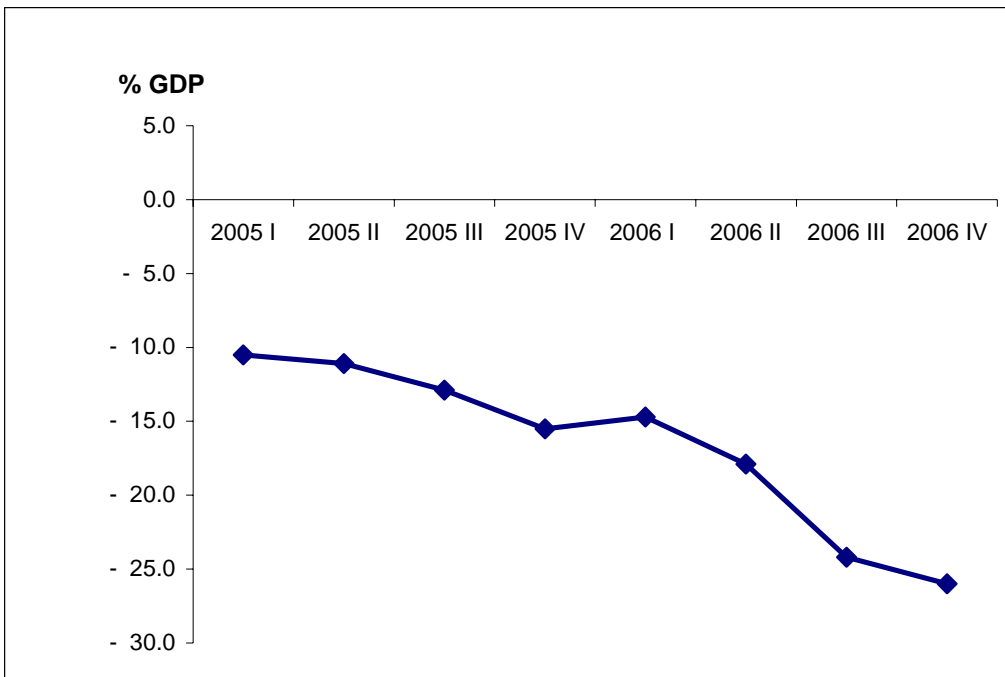


We offer three pieces of evidence to support this case:

- Recent current account developments
- Recent developments in the real exchange rate
- Recent developments in export and import volumes

The worsening Latvian current account is illustrated in Figure 10 below. This is well known but the Latvian authorities seem to be extraordinarily sanguine about this. As has already been noted only 10 other very small economies had higher current account deficits than this in 2006.

Figure 10: Recent quarterly current account developments in Latvia

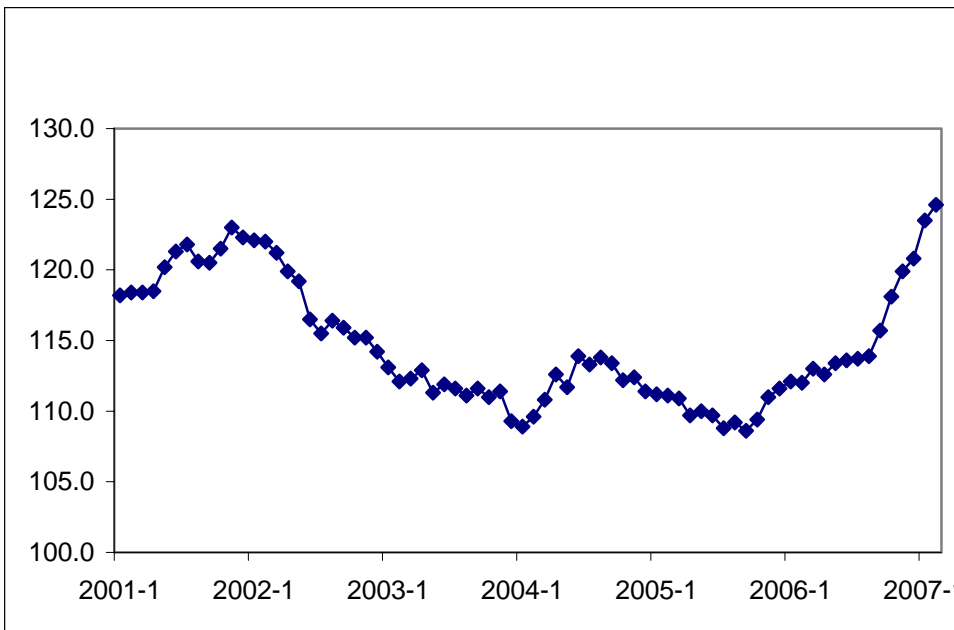


Source: Bank of Latvia

What lies behind the deteriorating current account? Figure 11 shows developments in the real effective exchange rate (REER) in terms of producer prices against Latvia's main trading partners¹⁷.

¹⁷ The REER in terms of consumer prices shows a similar deterioration but the producer price REER is more relevant for competitiveness.

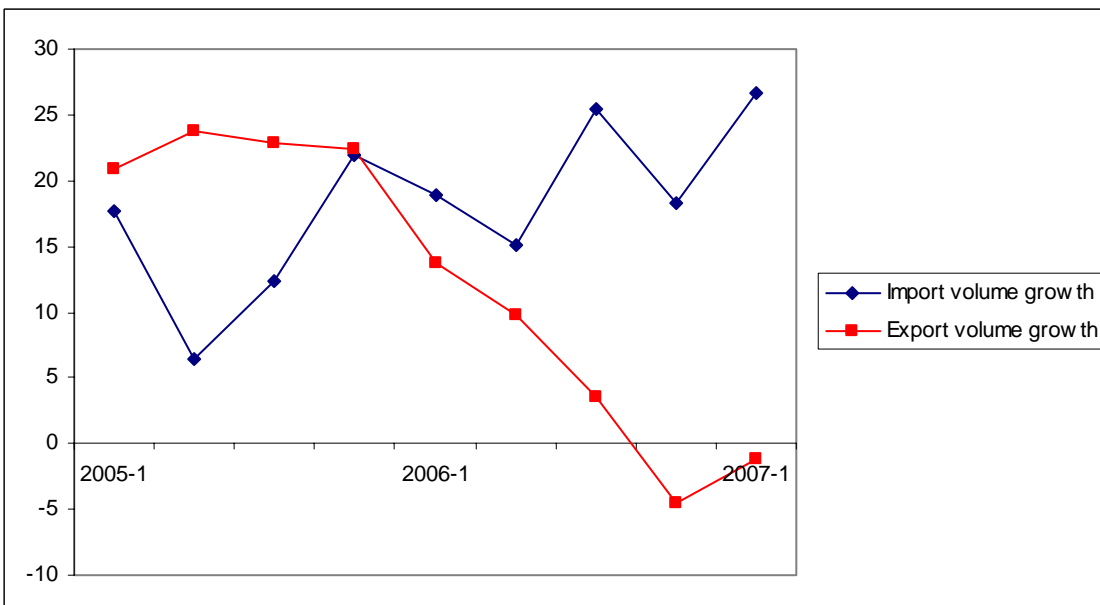
Figure 11: Real exchange rate developments in Latvia using producer price indices



Source: Bank of Latvia

The point to note here is the rapid and seemingly accelerating loss of competitiveness since mid-2005. This loss of competitiveness is dramatically reflected in the most recent developments in export and import volumes. This is shown in Figure 12 below.

Figure 12: Recent developments in export and import volumes

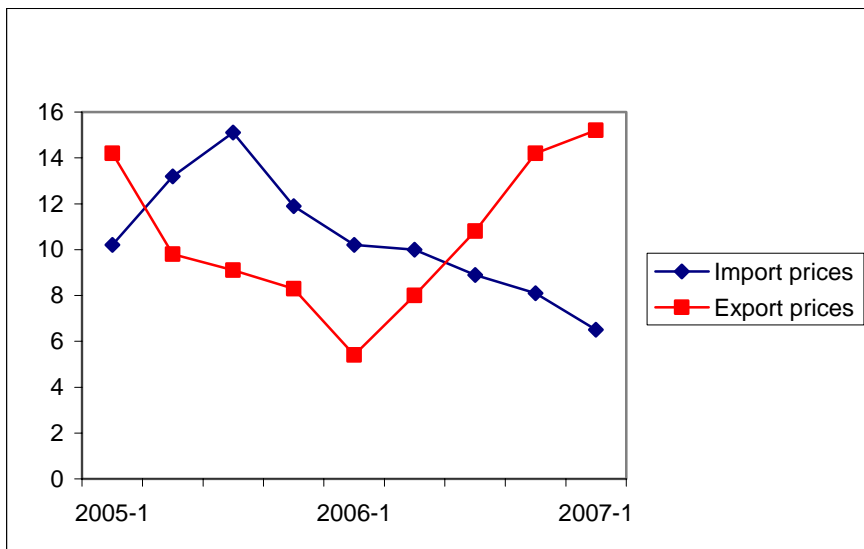


Source: CSB and own calculations

These are year-on-year figures so the deteriorating level of Latvian competitiveness has been associated with a rapid decline in the growth rate of the volume of exports to the point where in both of the last two quarters the volume of exports was actually lower than it was a year before. One cannot be categorical about causality but elementary economics suggests that if prices rise demand falls. This is what appears to have been happening with Latvian exports. At the same time the volume imports remain on a strongly growing trend boosted by falling import prices.

Figure 13 below shows recent developments in export and import prices:

Figure 13: Recent developments in export and import unit values

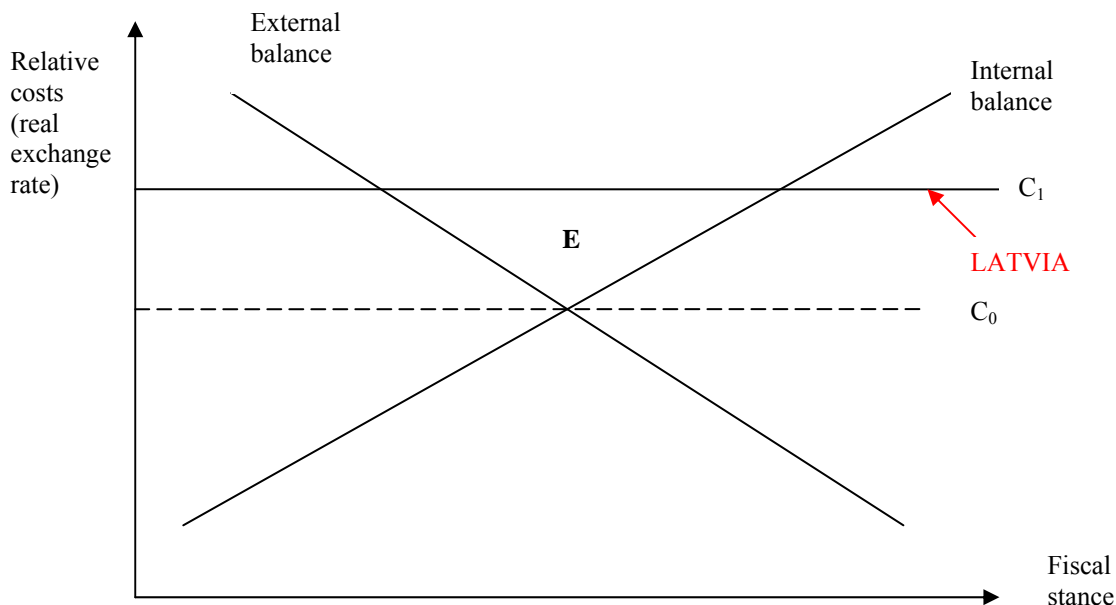


Source: CSB

The developments in export prices essentially reflect the fact that the Latvian producer price index has been rising rapidly as Latvian producers have attempted to pass to customers the effects of what is becoming a wage explosion.

So we conclude that Latvia's current situation is on the C_1 line as illustrated in Figure 14 below.

Figure 14: Latvia’s final current location on the Swan diagram



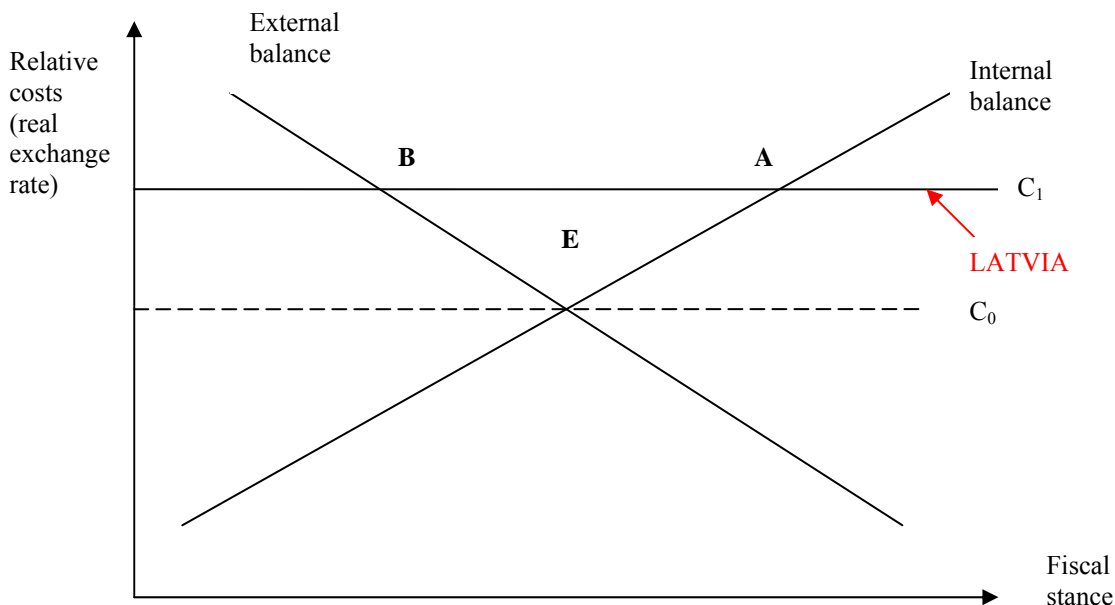
4 The anti-inflation plan

The government anti inflation plan¹⁸ has five broad sets of measures. Three measures – budget policy, real estate taxation and measures to dampen the credit boom – are described as providing “for short-term and medium-term policy implementation”. The other measures aimed at the labour market, productivity, energy efficiency and increased competition are “planned to bear fruits in a medium to long term”. Here we concentrate on the first three measures which have the most immediate bearing on the course of inflation in the nearest future. The other measures may have their merits but have only a marginal impact on the likely course of inflation.

It is worth emphasising that an important aspect of the effectiveness of the measures is that they should actually be implemented. For example we see that the measures aimed at the real estate market have already been watered down. Moreover there are doubts about the extent to which it is feasible to effectively impose the announced credit measures. Nevertheless, for analytical purposes we assume that the measures will be implemented as stated in the plan. Figure 15 below can be used to analyse the impact of budget measures and credit measures.

¹⁸ See <http://www.fm.gov.lv/page.php?id=3316>

Figure 15: The budget and credit measures of the anti-inflation plan

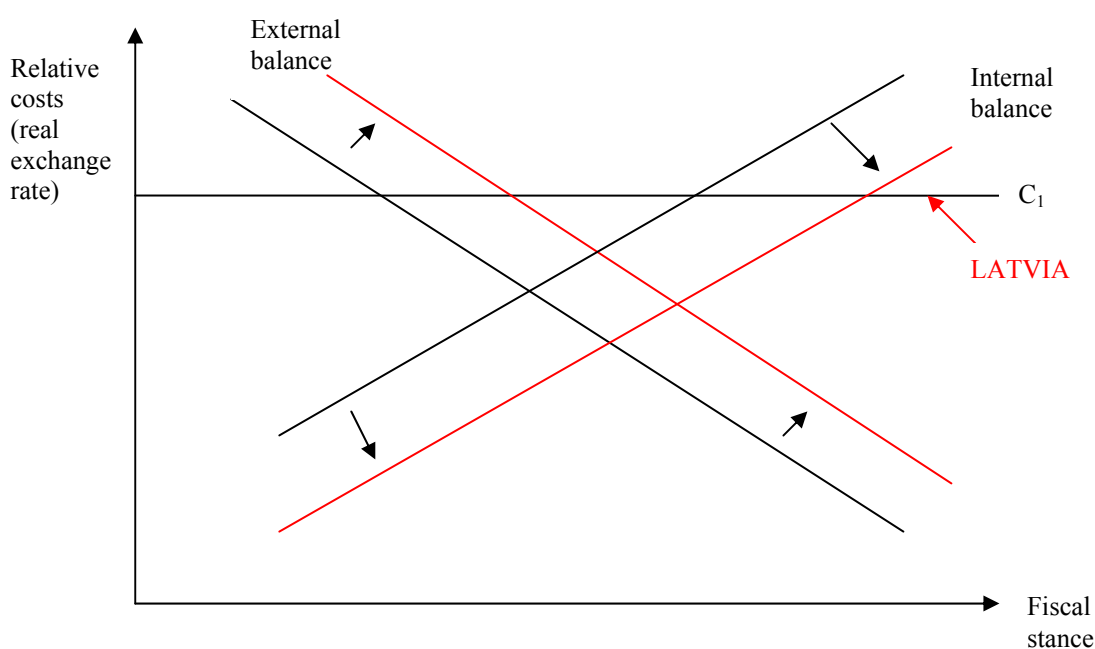


Both fiscal consolidation and credit restrictions have the effect of tightening the fiscal stance ie moving the economy in a leftward direction along the C_1 line, hence moving it towards the point A which represents a point on the ‘internal balance’ curve. In that sense these two sets of measures are a step in the ‘right direction’ and if sufficiently effective may actually achieve the aim of a satisfactory level of inflation. However, given the extent to which high inflation expectations may have become entrenched it may be difficult to move in a smooth way from where the economy is today to something like point A. It may be necessary to ‘overshoot’ in order squeeze inflationary expectations out of the system.

Even so, if internal balance at point A is achieved this would leave Latvia with a serious external imbalance. In order to achieve external balance, ie to reach point B, with fiscal and credit instruments the deflation would have to be very severe indeed and would come at the cost of substantial underperformance in terms of internal balance. This is the classic dilemma of a fixed exchange rate system – if the exchange rate is ruled out as a policy instrument a loss of competitiveness can only be restored by a substantial period of deflation in which price rises are below that of Latvia’s main trading partners.

The real estate market measures represent an interesting challenge for our analytical framework. If the measures ‘work’, in the sense of engineering a fall in the price of real estate then this will make Latvian residents feel poorer. This in turn can be expected to reduce spending out of a given income. The effects of this on the internal and external balance curves is illustrated in Figure 16 below.

Figure 16: The potential effects of the real estate measures of the anti-inflation plan



The external balance curve is shifted above to the right. Essentially, given that people feel poorer they spend less (including on imports) it is now possible at a given real exchange rate to achieve external balance with a less tight fiscal stance. Similarly, the internal balance curve shifts down to the right – again less spending by the private sector now permits an easier fiscal stance.

What is to be concluded for policy? The budget and credit measures simply move the economy horizontally at a given level of competitiveness. They do nothing to address the external imbalance except if deflation is sufficiently severe so that the domestic economy operates severely below capacity. The real estate measures are more complex. Clearly, if there is a substantial wealth effect arising from the real estate measures then less fiscal consolidation is required to achieve either

internal or external balance. However, it is also quite clear that the policy dilemma remains – there are still too few instruments to simultaneously achieve external and internal balance.

5 Concluding remarks

All the evidence we have examined – wage growth, producer price inflation and inflation expectations – points to an increase in inflation, possibly a substantial increase, before the fiscal measures of the government anti-inflation plan can be expected to come into play. This means that the external competitiveness of the Latvian economy can also be expected to worsen and with it the trade balance and the current account. This, and the impact from the tight labour market on inflation, suggests that inflation should be addressed simultaneously with labour market issues and external competitiveness.

We believe that from mid-2005 there has been a structural change in the price signals facing Latvian producers – the production of traded goods ie exports and import substitutes has become insufficiently rewarding while non-traded activities such as construction and services have become very profitable. This has resulted in the observed decline in growth of export volumes and in the implicit absence of import substitutes.

The government plan attempts to solve internal disequilibrium (inflation) and external disequilibrium (the current account deficit) with essentially one instrument, namely fiscal policy. As demonstrated this may restore competitiveness and thus external balance but is likely to require a long and costly process of deflation as has been done by e.g. Germany over a six year period, the price being substantial unemployment. Germany being in the eurozone no longer had the option of using the exchange rate instrument whereas Latvia still does. Latvia may eventually find itself in a situation where the pain of a long and costly period of deflation may be weighed against the cost of altering the peg to strengthen competitiveness – and where the latter may be the rational and less painful choice. It is not a matter of Latvia being forced to abandon the peg because of speculation whether in the short term or in the longer term – but the cost of purely fiscal measures may be seen as too high to be the rational choice.

The lesson must be that if policy makers resist even the thought of a possible realignment, fiscal contraction must be very severe and very fast and with a very strong commitment towards lower inflation.

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