

# WORKING PAPER

# 4-06

## Fiscal councils, independent forecasts and the budgetary process: lessons from the Belgian case

H. Bogaert, L. Dobbelaere, B. Hertveldt, I. Lebrun

June 2006



**Federal  
Planning Bureau**  
Economic analyses and forecasts

Avenue des Arts 47-49  
B-1000 Brussels  
Tel.: (02)507.73.11  
Fax: (02)507.73.73  
E-mail: [contact@plan.be](mailto:contact@plan.be)  
URL: <http://www.plan.be>

**.be**



A stylized graphic in the background shows a hand holding a pen, with the hand and pen rendered in light gray. The hand is positioned as if writing, with the pen tip pointing towards the bottom right. The overall style is clean and modern.

**Fiscal councils,  
independent forecasts and  
the budgetary process:  
lessons from  
the Belgian case**

H. Bogaert, L. Dobbelaere, B. Hertveldt, I. Lebrun

June 2006





## Federal Planning Bureau

The Belgian Federal Planning Bureau (FPB) is a public agency under the authority of the Prime Minister and the Minister of Economic Affairs. The FPB has a legal status that gives it an autonomy and intellectual independence within the Belgian federal public sector.

FPB's activities are primarily focused on macroeconomic forecasting, analyzing and assessing policies in economic, social and environmental fields.

## Internet

URL: <http://www.plan.be>

E-mail: [contact@plan.be](mailto:contact@plan.be)

## Publications

Publications:

*The Economic Forecasts*  
*The "Short Term Update"*

Planning Papers (recent publications)

*giving the results of policy analyses and assessments*

99 *Participations publiques dans le secteur marchand en Belgique, 1997-2003 / Overheidsparticipaties in de marktsector in België, 1997-2003*  
H. Spinnewyn - January 2006

100 *Les charges administratives en Belgique pour l'année 2005 / De administratieve lasten in België voor het jaar 2005*  
L. Janssen, Ch. Kegels, F. Verschueren - February 2006

Working Papers (recent publications)

2-06 *An Evaluation of the Risks Surrounding the 2006-2012 NIME Economic Outlook - Illustrative Stochastic Simulations*  
E. Meyermans, P. Van Brusselen - April 2006

3-06 *Het Europese begrotingscompromis van december 2005 - Financiële impact voor België en de andere lidstaten / Le compromis budgétaire européen de décembre 2005 - Impacts financiers pour la Belgique et les autres Etats membres*  
F. Hennart (Ministère de la Région Wallonne - Direction de la Politique Economique), M. Saintrain (Bureau fédéral du Plan), T. Vergeynst (Studiedienst van de Vlaamse Regering) - April 2006

Citations should refer to the publication, mentioning the author(s) and the date of publication.

Responsible publisher: Henri Bogaert  
Legal Deposit: D/2006/7433/21

---

*Abstract:* This paper describes the operating mode of the two existing Belgian fiscal councils as well as their role in the budgetary planning process. These institutions, created or reformed in depth in a context of large public deficits and increasing public debt-to-GDP ratios coupled with the regionalization of the Belgian state, are the result of a maturing process. The National Accounts Institute covers the positive side of the budgetary process, while the High Council of Finance deals with the normative side. Concerning the former domain, the creation of an independent institution to provide unbiased forecasts undeniably contributed to the consolidation of public finances in Belgium. In the context of the revised Stability and Growth Pact, lessons drawn from the Belgian experience can certainly be useful for other Member States willing to improve their fiscal institutional settings. Our chief recommendations for making the budgetary process successful are: institutions dealing with positive economics should enjoy a fully independent status but remain public; positive and normative issues should be completely separated from an institutional point of view; and responsibility should be shared between several strong independent institutions so as to minimize political pressure.

*Keywords:* Fiscal Institution, Budgetary Process, Forecast Accuracy

*JEL classification:* C53, E6, H61



## Table of Contents

I	Introduction	1
II	Role of Fiscal Councils in the Belgian budgetary process	3
	A. Progressive build-up of Belgian institutions	4
	B. Institutional separation between positive and normative economics	5
III	Importance of independent institutions and forecasts	7
	A. Official forecasting procedure in Belgium	8
	B. Assessing the quality of the economic budget	9
	C. Assessing the quality of potential GDP growth projections	11
IV	Lessons from the Belgian experience	13
V	References	15
VI	Appendix	17







## Introduction

One of the conclusions of the revised Stability and Growth Pact (SGP) emphasized the need to strengthen fiscal governance in the EU Member States through the development of national budgetary rules that should complement the EU framework. The Council acknowledged the important role national institutions could play in that respect. The Council also called for reliable budgetary statistics and realistic, even cautious, macroeconomic forecasts (Buti, 2006).<sup>1</sup>

These conclusions draw on the now generally accepted view, both by academics and policy makers, that the national institutional framework affects budgetary outcomes: some institutional characteristics lead to tighter budgetary discipline than others. As was shown in a report prepared for the Dutch Ministry of Finance (Hallenberg et al., 2001), budgetary practices vary extensively across Member States: some governments produce their economic forecasts in-house and leave the decision on what adjustments to make to the Finance Minister, while others use forecasts from independent organizations and establish strict rules on how changes in forecasts lead to changes in annual targets.

Over the last twenty years specific circumstances constrained Belgium to put in place institutions providing independent inputs, analyses and recommendations in the area of fiscal policy. Firstly, the regionalization of the Belgian state at the end of the eighties, in a context of very high budget deficits and a soaring public debt (respectively 7% and 125% of GDP in 1988), forced the government to take action in order to avoid overspending arising from independent regional governments. Consequently, the High Council of Finance (HCF) was reformed in 1989 and one of its new tasks was to monitor the fiscal policy of regional governments and to formulate medium-term financial objectives for the federated entities. The HCF also received a mandate to assess the convergence programmes. Secondly, as the Maastricht criteria for entry into the European Monetary Union were set in national accounts concepts, the National Accounts Institute (NAI) was created in 1994 in order to ensure the quality and the independency of the main economic statistics and macroeconomic forecasts upon which the budget was based. Following various reports on population ageing and its impact on public finances, a Study Committee on Ageing was created in 2001 within the HCF.

The role of the Federal Planning Bureau (FPB) in the budgetary process is manifold but limited to positive economics, as it does not make policy recommendations. The FPB produces, on behalf of the NAI, the macroeconomic forecasts used by the Belgian federal government for drawing up its budget and prepares, jointly with the National Bank of Belgium, the general government ac-

---

1. The Commission's initial proposal that stability programmes should be based on macroeconomic assumptions provided by the Commission was rejected. Even so, these assumptions should still be used as a benchmark.

count within the national accounts. Each spring, the FPB also publishes a medium-term economic outlook for the Belgian economy. This report is updated in autumn and serves as a starting point for the elaboration of the stability programme. The FPB also holds the secretariat of the Study Committee on Ageing and produces its long-term projections of age-related budgetary expenditures.

The purpose of this paper is to describe the role of fiscal councils in the budgetary planning process in Belgium and to emphasize the part taken by the Federal Planning Bureau in producing independent macroeconomic forecasts. The importance of independent forecasts in the budgetary process should not be underestimated, as illustrated in Jonung and Larch (2006). These authors show evidence that for several large European countries, official growth forecasts are biased towards optimism and that this forecasting bias, coupled with inertia in the budgetary process, has hampered fiscal consolidation.

The paper is organized as follows. In section 2 we introduce the concept of fiscal councils and describe the two main institutions that have to be considered in the Belgian budgetary process. The importance of independent institutions to produce the official forecasts is stressed in section 3 and illustrated with an assessment of the quality of the Belgian forecasts. The last section concludes the paper by drawing some lessons from the Belgian experience.



## Role of Fiscal Councils in the Belgian budgetary process

Based on the model of independent central banks, a number of economists have recently suggested that a more or less extensive part of fiscal policy should be entrusted to an independent fiscal agency so as to avoid the injudicious use of discretion by politicians. These proposals are supported by evidence showing that fiscal policy discretion often entails a deficit bias or leads to a pro-cyclical behaviour by policymakers in good times (Halleberg et al., op. cit.). Political and distributive conflicts, time inconsistency, short-time horizons of policymakers or the membership of a (small) country to a monetary union can all be quoted as possible underlying political or economic reasons for a deficit bias and pro-cyclical fiscal policies (IMF, 2005).

The International Monetary Fund identifies two types of fiscal agencies. The first type, called Independent Fiscal Authorities (IFAs), would receive a mandate comparable to that of independent central banks but on the fiscal side, i.e. to set and enforce long-term fiscal objectives and annual budgetary targets. Although theoretical arguments can be put forward in favour of setting up such institutions, there are to date no IFAs in operation in any country, probably reflecting the issue of democratic accountability.

A less drastic and more realistic option lies in the setup of Fiscal Councils (FC), which do not receive any specific authority over fiscal policy but undertake analyses and assessments of fiscal developments and policies. They could provide in particular:

- independent macroeconomic forecasts for evaluating tax revenues and public expenditure;
- public finance forecasts with a focus on fiscal balances;
- impact analyses of shocks or policies;
- policy recommendations such as rules, targets and strategies;
- an assessment of fiscal performance in comparison with the targets or rules adopted by the government or Parliament.

The first three items are in the domain of what has been called "positive economics".<sup>1</sup> It requires sound statistical and econometric expertise. It also entails large investment in methods, data collection and software.

---

1. This dichotomy between positive and normative economics was first introduced by Milton Friedman. According to Friedman, positive economics has to do with "what is", while normative economics has to do with "what ought to be". Positive economics is a social science, and as such is subject to the same checks on the basis of evidence as any science. By contrast, normative economics has a moral or ethical aspect, and as such goes beyond what a science can say.

The remaining two items are in the domain of "normative economics". They require other types of resources: especially, competent and well-informed experts in economics and public finances, who also have a very good knowledge of politics. They have to take into account not only the political options and preferences of the government but also what is feasible as first best or second best solutions. This is a complicated and subtle task, which includes the capacity to convince and to influence the government and public opinion. Positive and normative economics are closely related, with normative economics requesting information and analyses from positive economics, although they have very different roles.

The complex institutional framework of the Belgian state and the dramatic deterioration of the fiscal stance in the seventies and eighties forced the country to put in place FC-type institutions.

## A. Progressive build-up of Belgian institutions

There are two fiscal councils which have to be considered in the Belgian budgetary planning process: the High Council of Finance (HCF) and the National Accounts Institute (NAI). These institutions were not created from the onset with their present role in mind.<sup>1</sup> They are the result of a progressive and maturing process. The starting point was the regionalization of the Belgian State at the end of the eighties, when the country became a federal state with three Regions and three Communities. Although taxes are still essentially collected at the federal level, part of these tax receipts is transferred to the regional level. With a very high public debt (exceeding 120% of GDP at the end of the eighties), Belgium could not afford to run the risk of further government overspending arising from independent regional governments. In 1989, the High Council of Finance was reformed in depth. One of its new tasks was to monitor fiscal policy of the regional governments and to recommend, each year, a coordinated fiscal plan for the various governments.<sup>2</sup> To this end the section "Public sector borrowing requirements" was established within the HCF by the 1989 special law related to the financing of the Communities and the Regions. This law instituted the financial relations between the Central Government and the federated entities. Through this law, a monitoring mechanism was put in place in order to keep a close control on the borrowing requirements and borrowing capacity of the federal government as well as of the federated entities. The section "Public sector borrowing requirements" of the HCF determined the medium-term financial objectives for the federated entities. These objectives were included in the first Belgian Convergence Plan in 1992. They materialised the contribution of the federated entities to the stabilization process of the whole public sector and henceforth the respect of the criteria fixed at the EU level. This first Convergence Plan also explicitly stated that the section "Public sector borrowing requirements" received the mission to monitor the realisation of the objectives stated in the Convergence Plans.

---

1. This remark is mainly true for the HCF.

2. Other federal or quasi-federal EU Member States have put in place councils with a similar mandate - such as the Financial Planning Councils in Germany or the Council of Fiscal and Finance Policy in Spain - to coordinate the fiscal policies of the regions, to agree on the regions' financial framework and to avoid excessive debt build-up, in accordance with the Stability and Growth Pact.

Following various reports on the consequences of population ageing, the issue of the long-term sustainability of public finances emerged in the public debate in the nineties. In 2001, a Study Committee on Ageing was created within the HCF in order to analyse the budgetary and social consequences of ageing.

The setup of the second Fiscal Council was related to the entry of Belgium into the European Monetary Union. As the Maastricht targets were set in national accounts concepts, the National Accounts Institute was created in 1994 (law of 21 December) in order to ensure the quality and the independency of the main Belgian economic statistics and macroeconomic forecasts upon which the budget was based, as well as to improve their credibility at the international level. The missions of the NAI are shared by three associated institutions, namely Statistics Belgium, the National Bank of Belgium and the Federal Planning Bureau.

## **B. Institutional separation between positive and normative economics**

The positive economics side of the Belgian budgetary process can be described as follows. The National Accounts Institute is a special purpose vehicle - it has no staff and no resources - created to coordinate the production of the main national macroeconomic statistics and the macroeconomic forecasts underlying the federal budget and to ensure the independency and the quality of these statistics. According to the organic law, the NAI delegates its tasks to the three above-mentioned institutions. The production of statistics is subcontracted to the National Bank of Belgium for the national and regional accounts, the foreign trade statistics, the financial accounts and the supply and use tables and to the Federal Planning Bureau for the short-term macroeconomic forecasts (called the “economic budget”) and for the input-output tables, and to these last two institutions jointly for the general government account. Statistics Belgium is in charge of collecting the data upon which the above-mentioned statistics are based. Note that, of all missions carried out by the NAI, only the forecasting activities can, strictly speaking, be considered as typical tasks for a fiscal council, although providing high quality and reliable budgetary statistics is also recognised as an important input for fiscal policy (Council of the EU, 2005).

It is worth mentioning here that under its own name, the FPB publishes a medium-term economic outlook each year in spring. This report is a very detailed macroeconomic projection. It is the only occasion on which the FPB publishes forecasts of the public sector accounts as well as a comprehensive analysis of public finances.<sup>1</sup> These forecasts are updated in autumn as a starting point for the elaboration of the stability programme.

This brings us to the level of normative economics. The HCF is composed of high level experts: academics, members of the National Bank and representatives of the federal and regional administrations. The secretariat is held by the research department of the Ministry of Finance. The “Public sector borrowing requirement” section of the HCF publishes two yearly reports. The first report, published around March, assesses the stability programme of the previous year. The second, released in June/July, analyses the borrowing requirements of each government

---

1. The economic budget does not include forecasts of the general government account.

and makes recommendations on short and especially medium-term fiscal targets (and since 2002, also on long-term targets) for the general government and its different entities. The Study Committee on Ageing produces a yearly report including projections of age-related budgetary expenditures.<sup>1</sup> The section "Public sector borrowing requirements" is supposed to take these projections into account for its fiscal policy recommendations. With the new law regarding the setup of the Silver Fund<sup>2</sup>, the section will also advise the government on the amount to be transferred every year to this fund.

The diagram below gives an overview of the main activities of the fiscal councils, distinguishing the positive and normative side, and their link with the budget.

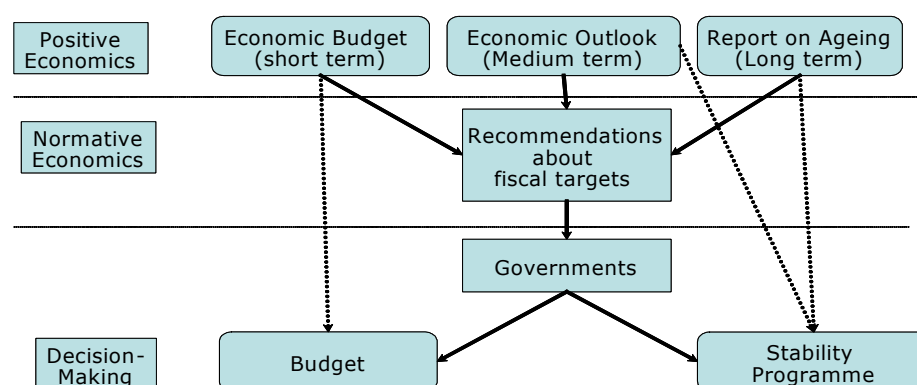


Table 1 in the appendix summarizes the timing of the main activities of the fiscal councils regarding the budgetary process.<sup>3</sup> The process starts in May with the release of the medium and long-term projections. The recommendations by the HCF follow in June. A provisional short-term macroeconomic forecasting exercise is prepared by the NAI in July and revised in the economic budget in September. The federal budget is presented to the Parliament in October. In the wake of the new budget, the Stability Programme is updated and extended. The economic budget is reassessed in February and precedes the budgetary control of March.

1. The FPB holds the secretariat of the Study Committee on Ageing and produces its long-term projections.
2. This fund was set up to finance the additional expenses resulting from ageing in the various statutory pension schemes between 2010 and 2030.
3. As a reminder, the month of release of the European Commission and Eurosystem forecasts are also mentioned in the table.



## III Importance of independent institutions and forecasts

As a survey on budgetary rules and norms in EU Member States indicates, only three out of fifteen governments (Austria, Belgium and the Netherlands)<sup>1</sup> rely solely on national independent agencies to produce macroeconomic forecasts that determine public revenue and spending projections for future years (Hallenberg et al., 2001). The same survey reveals that only states where respondents thought that estimates were “deliberately cautious”, had independent planning agencies that made growth forecasts. Countries with cautious growth forecasts also seemed to have higher than expected budget balances as indicated by a positive correlation between growth and budget errors.

In analysing the track record of budgetary forecasts contained in the Stability and Convergence programmes, Hallenberg et al. (2004) found that countries with overly optimistic growth assumptions were also those with the largest slippages from budgetary targets. Other studies show evidence of a clear link between budgetary outcomes and growth forecasts. Larch and Salto (2005) and very recently Jonung and Larch (2006) show that official forecasts for (real and potential) GDP are biased towards optimism for Germany, Italy and France<sup>2</sup> and that this forecasting bias, coupled with inertia in the budgetary process, is passed on to the structural deficit. These authors conclude that the bias of official growth forecasts partly explains the poor performance of fiscal consolidation observed in recent years in the euro area. They also stress that, although in budgetary terms an overestimation of potential GDP growth produces *ex post* the same results as active expansionary fiscal policy, the former requires another form of policy response to improve fiscal consolidation. These conclusions led the authors to plead for the establishment of independent forecasting authorities in all EU Member States. The usefulness of their proposal is supported by empirical evidence showing that in the few Member States mentioned above, where official forecasts are produced by independent national agencies, these forecasts show no statistically significant bias. Furthermore these independent national agencies could play a leading role in strengthening national ownership of the budgetary surveillance procedure.

To reduce the risk of bias in the official national growth forecasts, the initial package of the Commission concerning the reform of the SGP contained a proposal to delegate the economic growth projections used in the budgetary plans to the

- 
1. Luxembourg partly relies on forecasts made by the National Statistic Institute (STATEC) but also uses OECD and European Commission estimates by taking the lowest estimates. Ireland exclusively bases its forecasts on assessments by international agencies. In the eleven remaining countries, the Ministry of Finance relies on ‘in-house’ macroeconomic forecasts for its budgetary plans.
  2. The United Kingdom is the exception among the ‘big four’ with unbiased and remarkably accurate forecasts.

Commission (Deroose and Langedijk, 2005). A comparison of the forecasting performances by Member States and by the Commission (Hallenberg et al., op. cit.) reveals that GDP forecasts produced by the latter have been more accurate for several countries but notably not for Austria, Belgium and the Netherlands.

## A. Official forecasting procedure in Belgium

In Belgium the legal status of the institutions involved greatly contributes to the independence of the forecasting authority. The FPB is a public institution and, as any other public institution, has ministers who oversee it and set its budget. However, because of its specific tasks, it is independent in fulfilling them. To earn this independence, the FPB has a policy of being very transparent: it publishes its forecasts, methods, models and data.<sup>1</sup> It also assesses its own forecasting performance.<sup>2</sup> Staff recruitment is governed by a transparent procedure and the candidates are appointed on the proposal of the Bureau's managing board. Besides the federal government, the Central Economic Council, the National Labour Council and the legislative chambers may apply to the FPB to assess policy measures. It should be repeated that the role of the FPB is limited to positive economics, it does not make policy recommendations.

The figures contained in the economic budget are discussed and approved by the Board of the NAI and are therefore considered as the official forecasts. The Board is composed of the highest civil servant of the Ministry of Economic Affairs, the Governor and a director of the National Bank, the Commissioner of the FPB and his deputy and the Director General and a director of Statistics Belgium. A scientific committee, chaired by the Commissioner of the FPB and regrouping the main institutional users of the forecasts, also discusses the economic budget. The endorsement of the forecasts by the various independent institutions represented in the Board and the scientific committee makes political intervention very difficult, as the credibility of all institutions involved is at stake.

Whether the Law of December 1994 (which created the National Accounts Institute) imposes a formal obligation for the government to use the economic budget is probably disputable from a juridical point of view. However, up to now, the forecasts have always been taken into account by the government. Because the institution has achieved high credibility, not following the forecasts would entail a loss of reputation for the government. In times of uncertainty, the government can be more cautious and include safety margins in the budget, for instance to compensate for growth surprises or unforeseen rises in interest rates.

---

1. All available on the website: <http://www.plan.be>. The document describing the economic budget is published twice a year. For a detailed account of the forecasting process see Dobbelaere et. al. (2003).  
2. See for instance: Dobbelaere and Hertveldt (2004).



## B. Assessing the quality of the economic budget

The economic budget is released twice a year, once in the summer of the year  $t-1$  for the preparation of the budget of the year  $t$  and once in February of the year  $t$  for the budgetary control of the year  $t$ . The quarterly macroeconomic model Modtrim<sup>1</sup> serves as a central tool for producing the economic budget. The model's results, however, are adjusted on the basis of experts' views and are also adapted to take into account the most recent business cycle information, for instance stemming from leading indicators.

The economic budget supplies forecasts for a large range of economic variables. Here only two variables, namely real GDP growth and CPI inflation, will be examined. It concerns two global series that are important for the users of the economic budget. A choice to make first is to define what is considered as the outcome. For inflation, this is quite straightforward as the monthly published CPI is never revised. GDP growth figures, however, are subject to significant revisions. To avoid that unpredictable factors in the national accounts (such as methodological changes) would affect the analysis, outcomes are defined as the figures published in the first version of the national accounts of the year concerned.

Besides the problem of what should be chosen as outcomes, post-mortem analyses are generally surrounded by other problems. In particular, the limited size of the sample should lead to a cautious interpretation of the results that can be influenced by some outliers. One should also bear in mind that accuracy is only one aspect of quality. Other important quality features are for instance coherence and completeness. A full quality assessment should take into account all these aspects simultaneously.

The most intuitive indicator to evaluate the size of forecast errors is the mean absolute error (MAE), that yields the average difference between forecasts and realisations in percentage points (see Table 2). A look at the declining profile of the MAEs, especially for GDP growth, shows that the additional information that becomes available between the first and the second forecasting round significantly increases the accuracy of FPB projections, which proves the usefulness of the February updating of the economic budget.

Another way to evaluate the accuracy of FPB projections, is to compare them with naive forecasts. Three kinds of naive forecasts have been examined: a random walk (Theil 1), a 10-year moving average growth rate forecast (Theil 2) and an ARIMA projection (Theil 3). Theil coefficients are calculated as the ratio between the root mean square error of the reference forecasts and of the naive forecasts. Table 2 shows that naive forecasts are less accurate than the economic budget in all cases for CPI and in round 2 for GDP. Theil coefficients exceed unity only for Theil 2 and Theil 3 for GDP growth during the first round. As shown in the Graph 1, there has undeniably been one period of systematic over-optimism for the years 2001-2003, a period with successive bad surprises following the technology hype of 1999-2000. This is however not systematically the case over the whole sample. Theil coefficients fall below unity if these specific years are removed from the sample period. In conclusion, our findings confirm the commonly accepted view that over a 4 to 6-quarter horizon, structural model based forecasts outperform naive forecasts.

---

1. See Hertveldt and Lebrun (2003) for a detailed description of the model.

The size of the forecast errors is one thing, but the nature of those errors is at least as important. An interesting way to check whether systematic forecast errors can be found, is to decompose the mean square error (MSE) into three components: (i) the bias proportion (BP) measures which part of the error is due to systematic over- or underestimation; (ii) the variance proportion (VP) provides the part of the error owing to the misforecasting of the systematic component of the variability of outcomes; (iii) the covariance proportion (CP) is the part of the errors arising from other, unsystematic factors.<sup>1</sup>

Table 2 shows that the BP is small in all forecasting rounds, which means that FPB forecasts can be considered as unbiased. The VP of first round forecasts, however, is quite large. This should not come as a surprise as the available business cycle related information at that moment does not provide clear indications for the year ahead. Hence, first round forecasts are commonly based on a plausible trend scenario, which is obviously subject to upside and downside risks. If one of those risks or another shock materialises, the variability of the outcomes will be higher than that of the forecasts. In all cases, the CP represents the highest proportion, which leads to the conclusion that the nature of the forecast errors is mainly unsystematic and simply due to the fact that economic variables are stochastic.

For a small, open economy as Belgium yet another question to examine is whether and to what extent the observed forecast errors are due to false exogenous assumptions. The development of foreign export markets is a crucial exogenous variable for forecasting Belgian GDP. The export market hypothesis is typically based on weighted (reflecting the geographical orientation of Belgian exports) import growth figures taken from the most recent short-term forecasts of international organisations (EC, OECD, IMF).

The regression line in Graph 2 shows that there is a clear positive relationship between the forecast errors made in export markets and GDP growth. Rewriting history, one can try to examine what would have been the GDP forecast if the correct export market figure was known at the moment of the forecasting exercise. To calculate this in a simplified manner, GDP forecasts were adjusted based on the error in the export market figure and the estimated elasticity between GDP and export markets.<sup>2</sup> Correcting GDP forecasts in that way and comparing them again to the realizations, the absolute forecast error is reduced on average by more than 50%, both in the first and the second round forecasts and for almost all individual years. The fact that the regression line in the graph crosses the intersection of both axes and divides the quadrants in almost equal parts is another indication for the unbiased character of the GDP forecasts.

---

1. See Guitierrez and Vuchelen (2001).

2. This elasticity was derived from a model simulation with Modtrim, in response to a shock on the export markets. The average value of the elasticity is 0.19 over the first four quarters after the shock.

## C. Assessing the quality of potential GDP growth projections

The FPB prepares medium-term macroeconomic projections for the Belgian economy since the beginning of the eighties. This baseline is an unchanged policy scenario, notably with regard to fiscal and social policies, based on a “neutral” international environment. Scenario analysis is sometimes performed to illustrate potential risks surrounding the baseline or to analyse the effects of changes in economic policy. The economic outlook for the Belgian economy is published each year in May<sup>1</sup> and presented to the representatives of the social partners within the Central Economic Council. This medium-term outlook takes as a starting point the forecasts for the current year from the economic budget and covers a five years’ period. These projections are updated in October by incorporating the latest short-term forecasts (elaborated for the new budget) and are used as the macroeconomic framework for the Belgian stability programme.

Although the outlook is a very detailed macroeconomic projection covering evolutions by industry, the labour market, public finances and even energy consumption and associated greenhouse gas emissions, we will limit our analysis here to potential GDP estimates which are crucial to assess the credibility of multi-annual budgetary programmes. To check the accuracy of one-year ahead potential GDP growth forecasts we follow the method used by Jonung and Larch (2006) for other European countries.<sup>2</sup>

The results are presented in Graph 3.<sup>3</sup> Following a period of relatively low economic growth during the first half of the eighties, potential GDP growth was clearly underestimated at the end of that decade. On the opposite, high growth figures during the period 1987-1990 generated hopes of higher potential growth which did not materialize. The period following the 1993 recession was characterised by more cautious forecasts and thus a slight underestimation of potential growth while the end of the nineties and the believe in “the new economy” gave rise to overly optimistic projections. This analysis clearly illustrates the difficulty to disentangle the trend from the cycle at the end of the sample: a sustained period of economic upswing tends to make the forecaster think that this upswing is permanent, while a prolonged period of slow growth has the inverse effect. However, Belgian potential growth turned out to be *ex post* quite stable during the past twenty years.

The statistics in Table 3 show a slight overestimation of Belgian potential GDP growth over the period 1987-2003, but this negative mean error (see column ME) is not statistically different from zero at conventional confidence levels (see column No bias). The forecasting errors clearly exhibit serial correlation (see column No corr) which doesn’t come as a surprise considering the explanations given in the previous paragraph. Table 3 also shows that the accuracy of the forecasts (see columns MAE and RMSE) is quite similar to that in France but clearly better than in Germany and Italy, with only the UK performing better.

- 
1. During the course of time the exact publication date has evolved slightly as well as the frequency, but at least one outlook has been published each year in spring since 1980.
  2. The methodology is recalled in the footnotes of Table 3.
  3. The forecasting error is defined as the “actual” value minus the forecasted value. Thus a positive error indicates an underestimation of potential GDP growth while a negative implies the opposite.





## Lessons from the Belgian experience

The fiscal councils that have been created in Belgium have contributed to the indisputable improvement of Belgian public finances over the last ten years (see Graph 4). Although their characteristics correspond to Belgian specificities and may not be transposed as such to other countries, three main lessons can be drawn from the Belgian experience for the purpose of designing this type of institutions elsewhere:

- The institutions dealing with positive economics should enjoy a fully independent status, but owing to the specific knowledge required to fulfil their tasks, they should remain public.
- Since normative economics are linked to preferences, it is much more difficult for public opinion to accept a complete transfer of this kind of responsibility to an independent institution. This justifies the necessity for complete institutional separation between positive and normative issues.
- One way to make the budgetary process successful is to share responsibility between several strong independent institutions and experts to minimize political pressure on each of the individuals or institutions.

Finally, a recommendation from the European Council, saying that everyone would benefit, in the long term, from having independent national forecasting authorities, would be very welcome. This acknowledgment would give more guarantees of independence to national institutions. This would also send a good signal to new and acceding Member States which are in the process of reforming their institutions. The decision by the Finnish authorities to put the issue of the influence of national fiscal rules and institutions on fiscal policy-making on the agenda of their Presidency (during the second half of 2006), is certainly a step in the right direction. Besides, if independent institutions were to be generally implemented, it could pave the way for working groups at the EU level, made up of these institutions and the Commission, which would have a mandate to advise on shared methodologies and to discuss assumptions, sensitivity tests and scenarios.





## References

- Buti M. (2006), "Will the New Stability and Growth Pact Succeed? An Economic and Political Perspective", European Commission, Economic Papers, n° 241, January.
- Coeuré B. and Pisany-Ferry J. (2005), "Fiscal Policy in EMU: towards a Sustainability and Growth Pact?", Bruegel Working Paper n° 2005/01, December.
- Council of the European Union (2005), "Presidency Conclusions", 7619/1/05, March.
- Deroose S. and Langedijk S. (2005), "Improving the Stability and Growth Pact: the Commission's three pillar approach", European Commission, Occasional Papers, n° 15, January.
- Dobbelaere L., Hertveldt B., Hespel E. and Lebrun I. (2003), "De opmaak van de economische begroting: een handleiding", Working Paper 17-03, Federal Planning Bureau, October.
- Dobbelaere L. and Hertveldt B. (2004), "10 jaar Economische Begroting : Een terugblik op de kwaliteit van de vooruitzichten", Federal Planning Bureau, Working Paper 13-04, April.
- European Commission (2004), "Strengthening Economic Governance and Clarifying the Implementation of the Stability and Growth Pact", COM (2004) 581, September.
- Gutierrez M.-I. and Vuchelen J. (2002), "The quality of a consensus forecast for economic growth in Belgium, 1981-2000", Cahiers économiques de Bruxelles, Vol. 45 (1), pp. 67-90, Spring.
- Hallerberg M., Strauch R. and von Hagen J. (2001), "The Use and Effectiveness of Budgetary Rules and Norms in EU Member States.", Report Prepared for the Dutch Ministry of Finance, July.
- Hallerberg M., Strauch R. and von Hagen J. (2004) "Budgetary Forecasts in Europe – The Track Record of Stability and Convergence Programmes", ECB, Working Paper, n° 307, February.

Hertveldt B. and Lebrun I. (2003), "MODTRIM II: A quarterly model for the Belgian economy", Working Paper 6-03, Federal Planning Bureau, May.

International Monetary Fund (2005), "Promoting Fiscal Discipline: Is There a Role for Fiscal Agencies?", Board Paper, Fiscal Affairs Department, July.

Jonung L. and Larch M. (2006), "Improving fiscal policy in the EU. The case for independent forecasts", forthcoming in *Economic Policy*.

Larch M. and Salto M. (2005), "Fiscal Rules, Inertia and Discretionary Fiscal Policy", *Applied Economics*, 37, pp. 1135-46.

Poterba J. and von Hagen J., eds. (1999), *Fiscal Institutions and Fiscal Performance*, University of Chicago Press.





## Appendix

**TABLE 1 - Timing of the Belgium budgetary process and forecasts**

	Belgium	European Commission	Eurosystem
May	Medium and long-term projections	Spring forecasts	
June	HCF report	Integrated Guidelines	Projection
July	Provisional short-term forecast		
August			
September	Economic budget	Interim forecasts	
October	Budget National Reform Programme (NRP)		
November	Stability Programme (SP)	Autumn forecasts	
December			Projection
January		Assessment of SP and NRP	
February	Economic budget updated	Interim forecasts	
March	Budgetary control		
April			

**TABLE 2 - Key forecast error statistics (1994-2005)**

	Economic growth		CPI inflation	
	Round 1	Round 2	Round 1	Round 2
MAE	1.1	0.7	0.6	0.5
Theil 1 (random walk)	0.72	0.51	0.75	0.86
Theil 2 (10-year mov. avg.)	1.68	0.81	0.73	0.56
Theil 3 (ARIMA-forecast)	1.11	0.77	0.69	0.74
Breakdown of MSE				
BP	10.7%	0.3%	3.9%	6.7%
VP	45.3%	6.3%	38.6%	18.7%
CP	44.1%	93.4%	57.6%	74.7%

Source: Federal Planning Bureau, National Accounts Institute.

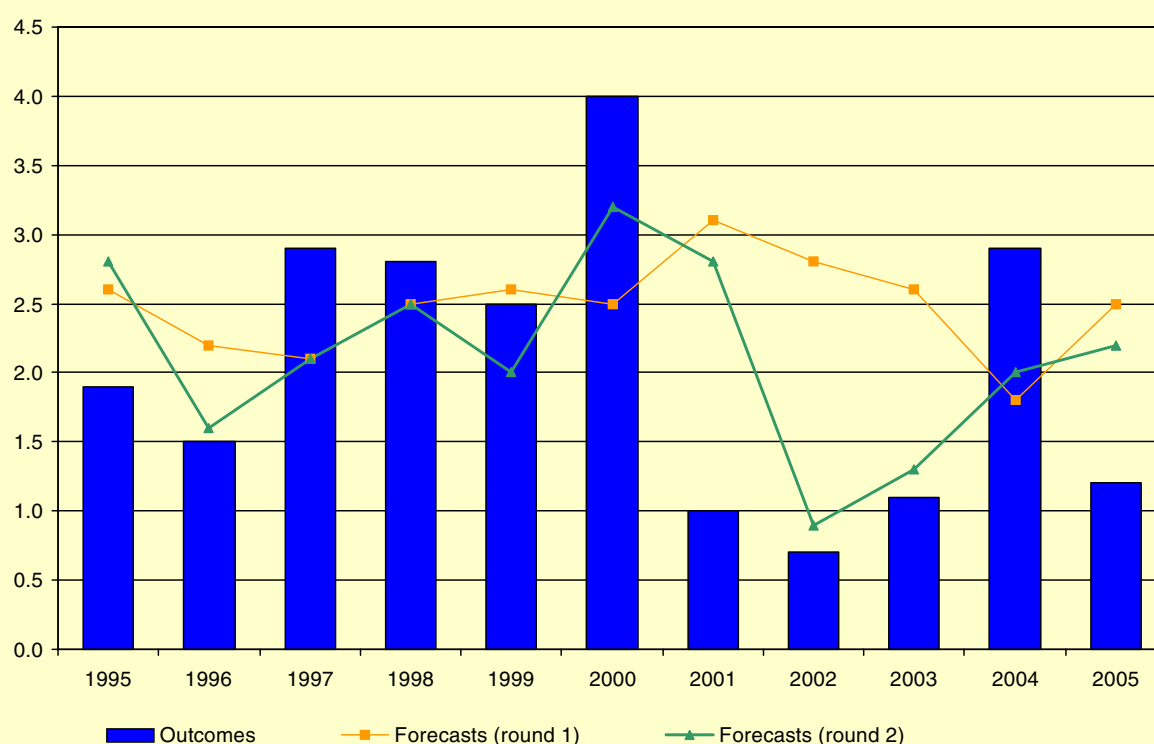
**TABLE 3 - One-year-ahead forecasting error of potential GDP growth (1987-2003)**

Country	ME	MAE	RMSE	No bias	No corr
Belgium	-0.12	0.38	0.45	0.28	0.00
Germany	-0.39	0.63	0.70	0.01	0.36
France	-0.29	0.34	0.40	0.00	0.73
Italy	-0.55	0.55	0.67	0.00	0.00
UK	-0.05	0.26	0.40	0.62	0.03

Source: Belgium: own calculations based on historical FPB databases; other countries: Jonung and Larch (2006).

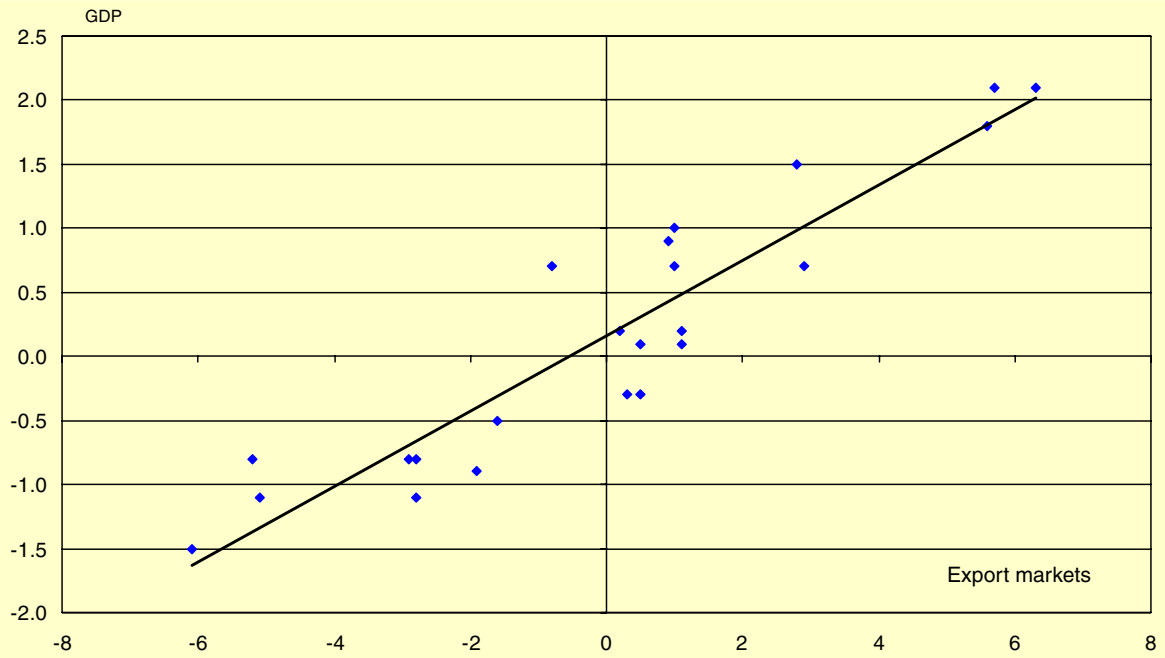
Methodology: the forecast of potential GDP growth for the year  $t$  is obtained by HP-filtering the GDP series (historical data plus projected figures) contained in the database of vintage  $t-1$ . "Actual" potential GDP growth is computed by applying recursively (using each time the same sample as for the forecasted estimates) the HP-filter on the latest available vintage of the GDP series.

Notes: ME = mean error  
MAE = mean absolute error  
RMSE = root mean squared error  
No bias = probability for zero mean error  
No corr = probability for uncorrelated errors (LM test with 2 lags)

**GRAPH 1 - GDP growth: First round forecasts and outcomes**

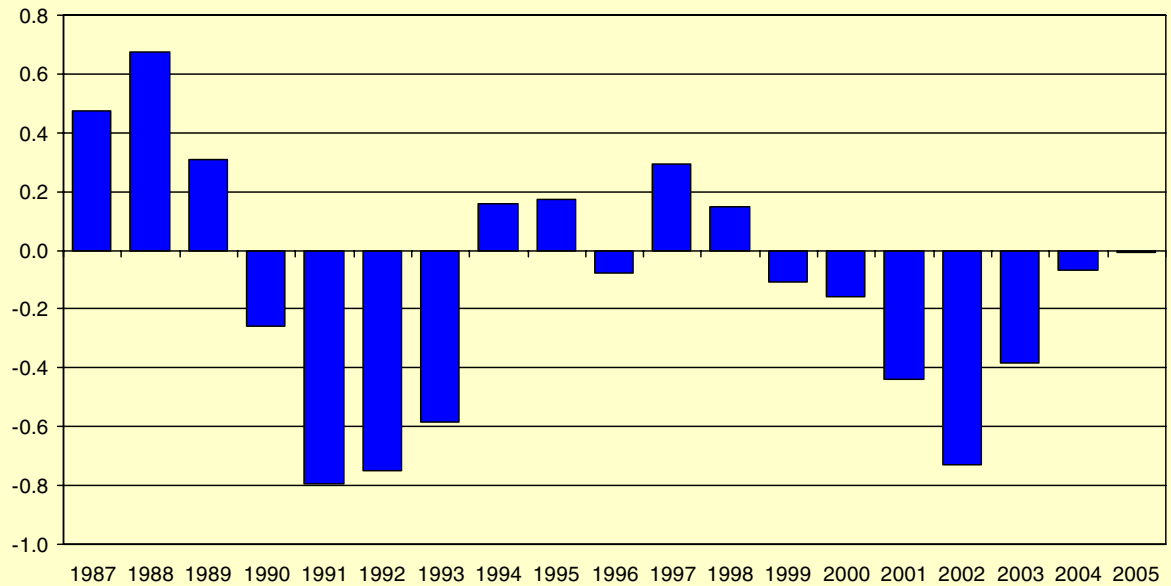
Source: Federal Planning Bureau, National Accounts Institute.

**GRAPH 2 - GDP forecasts and export market assumptions**  
(growth rate errors in percentage points)



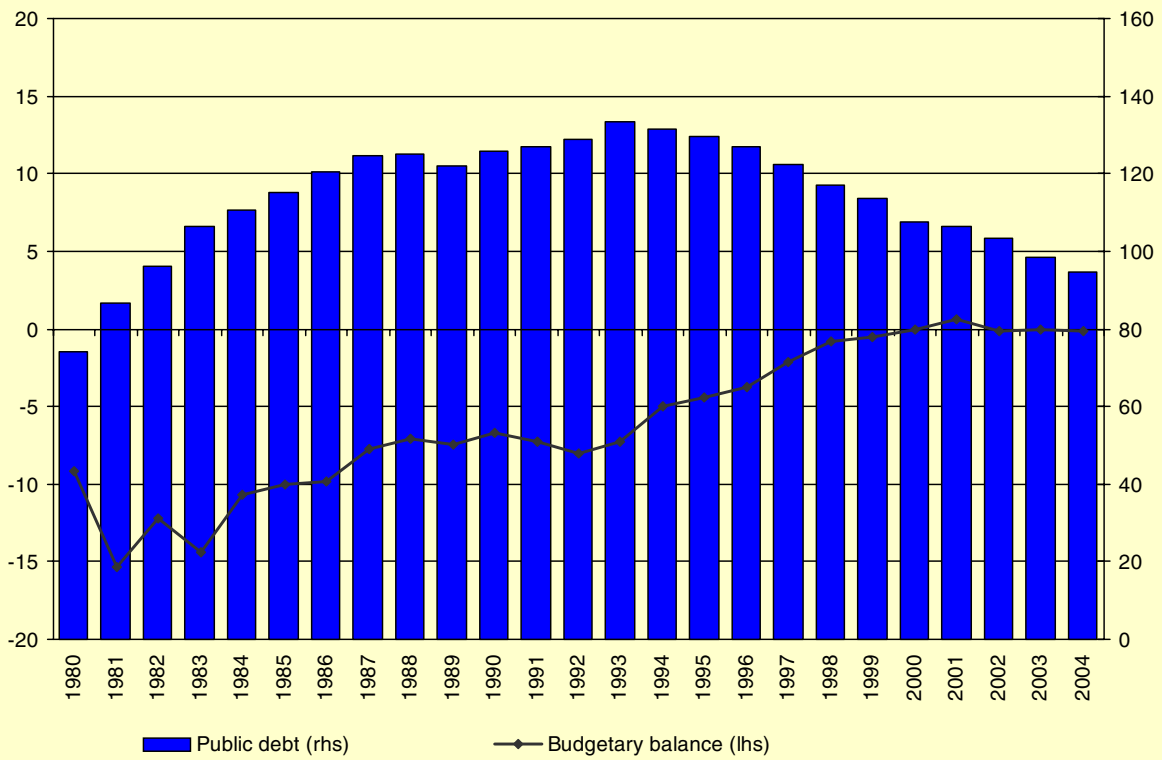
Source: Federal Planning Bureau, National Accounts Institute.

**GRAPH 3 - Potential GDP growth: Forecasting error**  
(in percentage points)



Source: Federal Planning Bureau.

**GRAPH 4 - Evolution of Belgian public finances**  
(in % of GDP)



Source: National Accounts Institute.