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CPB and Dutch fiscal policy in view of the financial crisis and ageing

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Abstract in English

Independent national fiscal institutions can play a major role in fiscal policy and in maintaining and restoring sustainability of a country's public finance. This paper describes the role of CPB in Dutch fiscal policy and discusses its merits and risks. And to what extent can it provide lessons for improving decision-making on fiscal policy in other countries? In the second part, the Dutch fiscal targets and rules are discussed in view of the rising costs of ageing, the depletion of natural gas resources and the financial crisis. In the Netherlands, for already 65 years, CPB serves as the official expert institute for fiscal and economic policy. It does not only serve the government, but meets also requests from opposition parties, trade unions and employers' organizations. The reputation of quality and independence had to be earned and defended again and again. Its eminent founder and first director, Jan Tinbergen, was responsible for a very good start. CPB has a more comprehensive role than comparable institutions in other countries. This includes e.g. providing the official estimates on economic growth and purchasing power, analysis of the sustainability of Dutch public finance, costs-benefit analysis of major infrastructure projects, analysis of the economic effects of the election plans of Dutch political parties and all kinds of analyses on the Dutch economy and the role of the government.

Key words: Fiscal council, CPB, Fiscal consolidation, Dutch fiscal policy, Sustainability of public finance, Independent fiscal institutions

JEL code: A11, D70, E60, E62, H6, H12, P10

Abstract in Dutch

Dit paper beschrijft en analyseert de rol van het CPB in het Nederlandse begrotingsbeleid. Wat zijn de voordelen en wat zijn de nadelen of beperkingen? In het tweede deel wordt aandacht besteed aan het Nederlandse begrotingsbeleid in het licht van de financiële crisis, de vergrijzing en de uitputting van de aardgasvoorraden. In vergelijking met soortgelijke instituten in het buitenland heeft het CPB een zeer veelomvattende taak. Dit betreft onder meer de officiële raming van de economische groei, koopkracht en werkloosheid, analyse van de houdbaarheid van de overheidsfinanciën, kosten-batenanalyse van infrastructuurprojecten, analyse van verkiezingsprogramma's en een breed scala aan analyses van de Nederlandse economie en de rol van de overheid.

Steekwoorden: CPB, Nederlands begrotingsbeleid, Houdbare overheidsfinanciën

Contents

Preface

The current financial crisis has revealed the limitations of economic science and forecasts. However, in particular in such times of hardship and turmoil, major economic decisions are to be made using all knowledge and information as best as possible; independent economic expert institutions like CPB can play a major role in this.

This year, CPB celebrated its 65th anniversary. This heritage of Jan Tinbergen, winner of the first Nobel Prize in Economics, plays an important role in Dutch economic and fiscal policy. It is widely known among the Dutch public and is cited nearly every day in the newspapers as high-quality and independent source on a wide range of economic and fiscal policy issues.

This paper describes and discusses the role of CPB in Dutch economic and fiscal policy. An earlier draft of this paper was presented at the Conference on Independent Fiscal Institutions, Budapest, March 18-19, 2010. The conference celebrated the foundation of the new Hungarian fiscal council. It also wanted to stimulate thinking about the role and tasks of independent fiscal institutions for fiscal policy and their institutional set up. I hope this paper will contribute to this.

Coen Teulings
Director

Summary

Independent national fiscal institutions can play a major role in fiscal policy and in maintaining and restoring sustainability of a country's public finance. In the Netherlands, for 65 years, CPB serves as the official expert institute for fiscal and economic policy. It is widely known among the public and it is cited more or less every day in the newspapers as high-quality and independent source on the merits of government policy. The CPB does not only serve the government, but meets also requests from opposition parties, trade unions and employers' organizations. This reputation of quality and independence had to be earned and defended again and again. Its eminent founder and first director, Jan Tinbergen, was responsible for a very good start.

CPB has a more comprehensive role than comparable institutions in other countries. This includes e.g.:

- The provision of the official estimates on economic growth, purchasing power and unemployment;
- Forecasts and analysis of Dutch public finance in short and medium term;
- Analysis of the sustainability of Dutch public finance;
- Analysis of the economic effects of the election plans of Dutch political parties and (provisional) coalition agreements;
- Cost-benefit analysis of major infrastructure projects;
- Studies on the best way to organize major areas of government revenue and expenditure, e.g. social security, health care, education, housing and taxation.
- Long run forward looking studies and many background studies.

The CPB is independent expert institute and as such an outsider in the Dutch economic and fiscal decision-making process. However, at the same time, it is also an insider, as it can use confidential information and its forecasts and analysis are in many respects explicitly embedded in the decision-making process, e.g.

- The forecasts by the Ministry of Finance on Dutch public finance are based on the macro-economic forecasts by the CPB, e.g. the economic growth rates, inflation, wage rates, oil prices and interest rates.
- Before the start of a new period of government, CPB provides new forecasts and analyses of the Dutch economy and public finance and analyses the consequences of election plans and provisional coalition agreements.
- Cost-benefit analysis is required for all major infrastructure projects.
- CPB participates in many important advisory groups.

In contrast to some other fiscal institutions, CPB does not play an explicit normative role on Dutch fiscal policy, i.e. what should be the fiscal rules and targets for the next period of government. This role is played by the advisory group on fiscal policy, in which CPB participates and provides technical assistance.

Despite the quasi-monopolistic role of CPB and its being financed completely by the Dutch government, quality, relevance and independence are being safeguarded. Key-ingredients for this are the existence of a free press and regular and independent evaluation of the quality and relevance of the work by CPB.

Institutions like CPB can improve the fiscal decision-making process by providing information, knowledge and checks and balances. This is essential for increasing trust and for reducing uncertainty, fiscal illusion, the short-sightedness of citizens and politicians and the negative role of lobbies and asymmetric information.

In the second part, the Dutch fiscal targets and rules since 1980 are discussed in view of the rising costs of ageing, the depletion of natural gas resources and the financial crisis. The financial crisis increased the sustainability gap of Dutch public finance; the rapid increase in guarantees by the central government indicate that the downward risks for Dutch public finance have become much larger. This year's election plans of the nine major political parties showed consensus on the need to drastically reduce the fiscal sustainability gap. The coalition agreement of the new government Rutte implies that the sustainability gap will be reduced by 3% GDP; leaving a sustainability gap to be solved by future generations of about 1% GDP.

1 Introduction

In the aftermath of the global financial crisis, many countries are faced with large budget deficits, a rapidly increasing public debt and big contingent liabilities due to large-scale financial rescue operations. In order to restore the sustainability of public finance, a major fiscal consolidation effort is therefore required. National fiscal rules and independent fiscal institutions can play an important role in such a consolidation effort. National fiscal rules and independent fiscal institutions are also useful in reconciling the need for sustainable public finance with macro-economic stability, efficient allocation and politically acceptable changes in taxes and public arrangements. For years, this has been stressed by the IMF[1], the OECD[2] and some academic economists (see e.g. Wyplosz, 2002, von Hagen and Harden, 1995 and von Hagen, 1992, 2002 and 2010).

According to Wyplosz (2002, p. 9), rules "tend to be rigid and artificial (arbitrary debt or deficit limits, golden rules based on thin air and falsifiable accounts), which makes them ultimately impossible to defend in the face of public opinions." Institutions are therefore essential for combining a credible commitment to long-run debt stability with sufficient short run flexibility. He discusses a constitutional approach (a limit on debt or deficit in the constitution like in the states of the US) and two approaches relying on independent outside national institutions:

- National fiscal policy committees or councils like the central banks' monetary policy committees. The committee would consist of a small group of experts supported by a staff producing its own forecasts of the national economy and public finance. They would set annual deficit figures in percent GDP ahead of the government budgetary cycle. They would also check the spending and revenue projections of the budget bill before it becomes law.
- A national court of wise persons. The court would share most of the characteristics of the fiscal policy committee but its decisions would not have the power of law. The court would issue guidelines on the size of the following year's budget balance and report on the previous year's budget execution. Its findings and recommendations would be made public, possibly presented solemnly to the government and parliament.

Hagen and Harden (1994 and 1995) investigate the political economy of the budget process and test their hypotheses for the EU-member states. They argue that the (national) budget process has a major effect on the spending bias due to fiscal illusion, i.e. the overestimation of the marginal benefit of specific public (tax) expenditure as they are financed by the general tax payer and not by those benefiting from this expenditure. Limiting such fiscal illusion is

[1] See IMF (2001) and IMF (2005).
[2] See OECD (2002), Blondal (2008) and Price (2010).

therefore essential for the commitment for fiscal discipline. Four characteristics of the budget process are considered to be relevant for the size of fiscal illusion:

- The structure of negotiations within government;
- The rules of the parliamentary process;
- The flexibility of the budget execution;
- The informativeness of the budget draft.

This results in the following hypotheses on features of the budget process increasing fiscal discipline[3]:

- A strong position of the prime minister of finance in government;
- Government negotiations producing a set of binding targets early in the process;
- A parliamentary process with strong limits on amendments, votes proceeding item-by-item on expenditures and a global vote on the total size of the budget preceding the parliamentary debate;
- A large degree of transparency of the budget;
- An execution process with limited flexibility for the spending ministries and a strong position of the finance ministry.

The euro-crisis following the problems with Greek public finance has triggered a new and very urgent debate in Europe about the role of fiscal rules and institutions. Should the Stability and Growth pact be strengthened to enforce fiscal discipline? Or should the Stability Pact be decentralized to where the political authority lies and should each country in the euro-zone be obliged to adopt national fiscal rules and institutions that can guarantee fiscal discipline? Many leading economists think only the latter strategy makes sense (see Baldwin and Gros, 2010). Recent changes in the national fiscal rules and institutions of various European countries reflect a similar view. Last year, Germany decided to increase its fiscal discipline by writing into its Constitution that the structural deficit should not exceed 0.35% GDP. In Sweden (2007), Hungary (2009) and the UK (2010), fiscal institutions have been introduced to improve fiscal discipline and in Slovenia a new fiscal institute is forthcoming.

[3] Their data suggest also a systematic link between a country's size and the successful choice of a budget process. "The budget processes of all governments of large states that successfully limited spending and deficits in the 1970s and 1980s (France, Britain, and Germany) are based on a procedure-oriented approach. In contrast, the budget processes of all governments of smaller countries (Denmark, the Netherlands and Luxembourg) that successfully limited spending and deficits are based on a target oriented one. ... One plausible explanation is that .... size correlates with complexity of administrations which makes it more difficult to monitor compliance with numerical budget targets. For larger administrations, creating a strong player constantly negotiating with and monitoring the other participant is, therefore, a more effective tool to contain fiscal illusions that the setting of numerical targets. US experience with deficit control in the 1980s and early 1990s fits the same pattern. In the mid-1980s, the target-oriented approach of the Gramm-Rudman-Hollings Act failed to achieve its purpose. The Budget Enforcement Act passed under the Bush administration, which relies more on a procedure-oriented approach seems to enjoy greater success". (Hagen and Harden, 1995, pp. 778-779)

However, what should be the fiscal rules and fiscal institutions in a specific country and in view of specific economic circumstances? [4] There are many possibilities and papers like that of Wyplosz and von Hagen and Harden only investigate some archetypes. Comparison with country practice reveals an even wider menu of choice, e.g. the role of CPB in analysing the election plans of Dutch political parties.

This paper describes and discusses Dutch fiscal rules and institutions and looks at the challenges for Dutch fiscal policy.

The first part of this paper (section 2) describes the role of CPB in Dutch economic and fiscal policy and discusses its merits and risks and the possible lessons for improving fiscal policy in other countries.

In the second part of this paper (section 3), the challenges for Dutch fiscal policy are discussed in view of the rising costs of ageing, the depletion of natural gas resources and the financial crisis. This section starts with an overview of Dutch fiscal policy and its rules and targets since 1980. During this whole period, the major purpose was to reduce public deficit and debt. Since 2000, this is explicitly linked to forward looking calculations on sustainable public finance by CPB.

[4] Economic science is universal, but unlike the so-called Washington-consensus on good economic policy- it has not one but many recipes: "There is no unique correspondence between the functions that good institutions perform and the form that such institutions take. Reformers have substantial room for creatively packaging these principles into institutional designs that are sensitive to local constraints and take advantage of local opportunities. Successful countries are those that have used this room wisely" (Rodrik, 2007, p. 15).

2 The role of CPB in Dutch economic and fiscal policy

2.1 History

CPB Netherlands Bureau for Economic Policy Analysis started operations in 1945, shortly after the Liberalisation. It was formally instituted under the name of '*Centraal Planbureau*' (*Central Planning Bureau*) by the *Law of April 21, 1947, containing the preparation of the assessment of a Central Economic Plan*. Directly after the Second World War, CPB had a good start with Jan Tinbergen serving as its first director (see Boogaard, 1998, Bos, 2006b, pp. 232-237, Passenier, 1994 and Don and Verbruggen, 2006). The need for a joint strategy for economic recovery gave a clear role for CPB estimates and analyses. Furthermore, the outstanding qualities of Jan Tinbergen both as economist and political advisor and as a moral authority contributed directly and indirectly to the appreciation of CPB work.

'Centraal Planbureau' is somewhat of a misnomer, actually. CPB never did any planning in the sense of issuing administrative guidelines for managing the Dutch economy. Right from the start the Bureau emphasised macroeconomic assessment and forecasting, and the annual *Central Economic Plan* has never contained any guidelines. But the name *Centraal Planbureau* is so engrained in the Netherlands that it would not pay to change it. Internationally, however, CPB presents itself as *CPB Netherlands Bureau for Economic Policy Analysis*[5].

The first CPB-model was operational in 1953. It served as a basis for prediction and policy advice by CPB for most of the 1950s. This was path-breaking, as modelling was elsewhere an academic exercise and considered as not suited for the work of official government institutions. The model was used to draft a table indicating the consequences of particular measures of economic policy. For example, the effects of an indirect tax or wage increase on employment, investment, consumer prices and the current account of the balance of payments. The table enabled decision-makers to choose their favourite policy menu. The table reflects Tinbergen's new view on planning: policy makers should define the targets of government policy and a model should be used to investigate which instruments are the most effective and efficient in meeting these targets. This approach was extended and formalised in his book "On the theory of economic policy" (Tinbergen, 1952).

The role of CPB as advisor and arbitrator fits well in the Dutch tradition of consultation and coalition governments. The approach fitted also very well in the Dutch pillarised society, where the four pillars (catholics, protestants, social democrats and liberals/free) all had their own organizations, like political parties, trade unions, employers' organizations, newspapers, sports clubs, schools and universities. After the Second World War, all pillars agreed that a national economic policy was required for economic recovery. This required pillar and class neutral insights.

[5] This name has been used now for over 15 years.

The evolution of the role and reputation of CPB in Dutch policy making has not been a smooth path. Innovation of the products and models by CPB often took substantial time (see table 2.1), forecasts were now and then substantially wrong and new insights from CPB were not always very welcome. For example, in the seventies, the new supply side model was subject to heated debates and the same applied to the cost-benefit analysis of the railway track to Germany in 1994.

Table 2.1 Major events in the evolution of CPB and Dutch fiscal policy

1945	Start of CPB with Tinbergen as its first director Pre-war ideas of social planning gradually evolve into forecasts and analysis about objectives and tools
1950	Start of Socio-Economic Council
1953	First CPB-macro model for analysing and forecasting the Dutch economy
1961	In September each year, simultaneously with the Government Budget, a Macro Economic Outlook on the Dutch economy is to be published, including independent estimates of Dutch public finance
1971	First advisory group on fiscal policy; CPB is one of the participants
1975	Supply side included in macro-model (clay clay vintage-production function), which substantially changed policy recommendations
1986	First analysis of the economic consequences of the election plans of political parties
1992	First applied general equilibrium model for the labour market (MIMIC)
1992	First long term scenario analysis (Scanning the future)
1993	First major study on economic institutions: a comparison of the economic institutions in Germany and the Netherlands
1994	Cost-benefit analysis of railway track to Germany (Betuwelijn)
1998	First generational accounts for the Netherlands
2000	National guidelines by CPB on cost-benefit analysis
2009	Parliament is formally allowed to directly ask CPB for a judgement on specific issues

CPB's forecasts for the short- and medium term are generally accepted as setting the framework for political negotiations on the budget. Most political parties present their election platforms to CPB for an evaluation of their economic and budgetary implications. In that sense, CPB has a monopoly— and every now and then there is some discussion on whether or not there should be alternatives to CPB's forecast, usually having in mind the German situation with five institutions. In fact, alternative forecasts have always been around, but the forecast of the Bureau has remained the natural focal point of the political process. Forecasting inflation is a task of CPB by legislation, and CPB's estimate of the contractual wage increase is used for adjusting the legal minimum wage— but these uses are exceptions. For the most part, CPB's policy analyses are influential due to public perception of their quality and independence. This perception generates a considerable market for CPB's analyses outside the circles of policymakers in The Hague. CPB is cited more or less every day in the popular press on a wide range of issues.[6]

[6] CPB recently subscribed to the media monitoring service of Meltwater News.

The position of CPB is somewhat comparable to the Congressional Budget Office (CBO) in the US— although they are constrained to budgetary analysis, whereas CPB also performs wider economic analyses and scenario studies. Also, CPB's research is more deeply embedded in economic theory than that of CBO. Compared to the Institute of Fiscal Studies (IFS) in the UK, CPB has a deeper knowledge of the institutional details of the Dutch system and is also more embedded in the policy process, via the participation in all kinds of advisory committees. The bureau is frequently consulted, formally and informally, on a wide range of factual and policy issues. Moreover, CPB has regular contact with colleagues at the IMF and OECD, who consult the bureau for its assessment of the situation in the Netherlands. In fact, the IMF and OECD refer to CPB as an economic research institute that is independent but well embedded in the policymaking process, as a 'best practice' that serves as an example for other countries.[7]

Formally, CPB is just a branch of the civil service within the Ministry of Economic Affairs. The personnel evaluation of CPB director is carried out by the Secretary General of the Ministry. In that sense, CPB's independence is not formally engrained. By way of comparison, Statistics Netherlands (CBS) is an Independent Government Body (ZBO), which gives more formal guarantees for independence. However, the informal rules of conduct and procedures— many of which have evolved into their present form during the course of decades— provide CPB a strong independence. This is reinforced by the fact that CPB also does policy analyses for the opposition parties not represented in the government or for the parliament as a whole. Till recently, parties or the parliament had to formally request the government to let CPB evaluate particular proposals. On one occasion, this procedure let to trouble, since CPB reported to the government and let the government send the report to the parliament. A delay of a couple of days raised the suspicion that the government had tried to influence the conclusions of the report. Hence, the procedure has been changed and since 2009, the parliament can direct such request directly to CPB and CPB can report directly to the parliament. All this does not preclude the occasional attempt by the government to interfere with either the research agenda or the conclusions of the research.

CPB has an advisory board, installed by the law of 1947 and therefore named the Central Planning Committee (CPC). The members of the CPC are nominated by the Cabinet and appointed for a five year term. While the CPC is formally just an advisory board, CPB uses the committee as if it were a supervisory board, just to provide proper checks and balances for the board of directors of CPB and to avoid a situation in which the Minister of Economic Affairs has to play that role.

With regard to CPB's funding, eighty percent comes from a lump-sum subsidy from the government. The other twenty percent involves monies that are earmarked for specific projects— most of them carried out for the Dutch government, but also some for the European Commission. There is a semi-formal rule that the share of the budget that comes from this type of project should not exceed twenty percent, since a larger share would undermine the

[7] IMF (2006) and Anderson (2009).

independence of its judgment. The staff of CPB is about 150 full time equivalents, of which about 100 economists.

2.2 Types of research

CPB's research can be roughly classified into six categories, which are listed together with some examples for each category in Table 2.2.

An ever-increasing part of CPB's research capacity is assigned to *the institutional analysis of specific sectors*, analysing the type of incentives that various actors have and examining how these incentives affect the outcome, and exploring how changes in incentives can improve these outcomes. These studies are highly influential for policymaking. On many occasions, the government commissions CPB to carry out such a study— often when the current institutions are unsustainable. Major studies have been published about social security arrangements, the health care system, education, the subsidies and tax credits for housing, the impact of immigration. In 1997, embedded in a general analysis on the interplay of institutions, trade-offs, performance and trends, a comprehensive comparison of German and Dutch economic institutions was published (CPB, 1997). The use of explicit incentives has become one of the major issues of the Dutch public-service modernisation agenda. CPB studies have investigated the usefulness of performance contracts and performance pay in various (semi-)public sectors, e.g. the social benefit administration, the police force, the education sector, universities, physicians and the major technical research institute in the Netherlands (TNO).

The second category is *Cost-Benefit Analysis* (CBA). These analyses have a formal status in the decision process on infrastructural projects. Although the conclusions of CPB's analyses are again quite influential, the ultimate decision deviates in many cases from what is implied by the CBA. The role of the CPB in CBA is discussed in section 2.7.

Whereas CBAs provide an ex ante evaluation of projects, CBP also initiates *ex post evaluations*. CPB has initiated a number of evaluations that serve as practical examples, using treatment- and control groups derived both from natural experiments and by randomisation, but also seeks to play an advisory role in evaluations done by other parties. Compared to CBAs, which are by now accepted practice and therefore largely initiated by the stakeholders themselves, *ex post* evaluations are still in the take-off stage.

A fourth category comprises the *short- and medium-term forecasts*. Short-term forecasts (intended for the present year and the next) are published quarterly. Twice a year they include an extensive evaluation of the budgetary situation. These forecasts play an important role in the yearly budgetary process for the government. Medium-term forecasts (looking four years ahead) are published every four years, coinciding with the election cycle. They are discussed in greater detail in sections 2.3, 2.5 and 2.6.

Table 2.2 Examples of CPB studies per type of research

I. Institutional analysis of specific sectors, e.g.

. Intergenerational risk sharing in pension funds
. The organisation of the care sector in healthcare (as opposed to the cure sector)
. Competition in education
. Tax subsidies for formal and informal childcare
. The interaction of social assistance, disability insurance for youngsters, and subsidized employment
. The housing market

II. Ex ante Cost-Benefit Analysis (CBA), e.g.

. Freight railroad to Germany
. High-speed railroad to Paris
. Business district Amsterdam South Axis
. American fighter planes
. A large housing location including its infrastructure in Almere

III. Ex post evaluation, e.g.

. A new organisation of social assistance
. Stricter performance evaluation for primary education in Amsterdam
. Performance contracts for the police
. Extension of the EU by new member states

IV. Short- and medium-term macroeconomic forecasting

. Quarterly publication of short-term macroeconomic forecast, including an extensive discussion of budgetary policy
. Medium-term review of the state of the economy
. Analysis of election plans

V. Long-run forward-looking studies, e.g.

. Four Futures of Europe
. Four Visions on the Netherlands: Scenario studies for the Dutch economy at large for the next 30 years
. Welfare and the environment (an elaboration of the spatial and environmental dimension of these scenarios)
. Ageing and the sustainability of Dutch public finances
. Four futures for the financial sector

VI. Background studies, e.g.

. A meta-analysis of the labour-supply elasticity
. Income effects in labour supply
. A micro simulation model for the labour market
. A DSGE model for the Dutch economy
. An input-output analysis of the importance of China and India for the Dutch economy
. The effect of positive and negative externalities on housing prices
. Dutch public finance in historical perspective (1814-present)
. The relation between productivity and export performance at the firm level (Melitz model)
. Use of real options in CBA

A fifth category includes the *long-run studies* (looking some thirty years ahead). Many of these studies use a scenario approach. They are published at irregular intervals of about four to seven years. In these studies, CPB sketches a picture of conceivable states of the world several decades from now. These worldviews help in getting a grip on the central dilemmas that policymakers face in the next couple of decades. Usually, scenario studies have a considerable impact on the long-run policy agenda in the Netherlands— for example, regarding the role of

markets in the economy, the relevance of international labour mobility, or the relative importance of the European versus national level in economic policy.

The sixth and final category is comprised of *background studies*, to develop new models and methods, to update priors on the value of crucial elasticities, to build up new human capital for addressing questions and issues arising in the other categories, and to open up new areas where economic theory can be applied fruitfully with the aim of improving economic policy.

The evolution of CPB's research programme over the past decennium has followed the general trend in the economic discipline at large. Ten to fifteen years ago, a much larger share of CPB's resources was used for medium- and short-run forecasting (the fourth category of activities). CPB has shifted the focus to a more institutional, microeconomic approach— and within the field of macro analysis, from cyclical to structural factors determining the growth of the economy. These new research fields have been quite successful, in the sense that they have gained a lot of attention in the policy debate.

Before the financial crisis, the role of banks in the economy was a topic studied at the Dutch central bank, but was not an issue of research at the CPB. As a consequence of the financial crisis, a new research unit was established that explicitly focuses on the financial sector and the role of banks. Also other units are now investigating the interaction between the financial and the real sector. This has resulted in several publications, e.g.

- Four futures of finance (Bijlsma, Elsenburg and van Leuvensteijn, 2010). This is a scenario study where market structure, market failures, and government failures vary between scenarios. These differences then translate into differences in the complexity of balance sheets, the ability to coordinate policy internationally, the information gap faced by regulators, the size of banks' balance sheets, the tradability of banks' assets, the level of interconnectedness, the potential for market discipline, and the threat of regulatory capture. As a result, each scenario calls for a different set of policies to combat systemic risk.
- Linkages between the financial and the real sector of the economy; a literature survey (Antony and Broer, 2010).
- Systematic risk in the financial sector: a review and synthesis (Bijlsma, Duineveld and Klomp, 2010).
- Failing corporate governance: why banks are addicted to risk (Bijlsma and Zwart, 2010).

In order to inform the Dutch public, a book about the financial crisis was published (van Ewijk and Teulings, 2009). It explains in Dutch a generally very accessible way about the origins and consequences of the financial crisis and the various remedies. The CPB has also launched a separate webpage informing the Dutch public about the financial crisis; this includes references to all relevant CPB publications.

2.3 The role of CPB in the election cycle and the formation of a government

Elections for a new parliament are held every four years (provided the government maintains confidence in parliament; if not, elections are held earlier on). The Netherlands has a multi-party system where no single party can claim a majority in the parliament (at present, at least four parties are required for a majority). As a consequence, parties have to negotiate on which party is allowed/prepared to enter government immediately after the election date, aiming to form a coalition that commands a majority in parliament. These negotiations end with the new coalition agreement, which stipulates the plans for the next four years. There is a tendency for this agreement to make increasingly detailed policy prescriptions, and parties represented in the coalition find it increasingly difficult to compromise on changes in this agreement.

Table 2.3 The road to a new medium-term framework

One year before the elections	CPB estimates of gdp and public finance in the medium and long term
One year before the elections	Report by the advisory group on fiscal policy
2 months before the elections	CPB-analysis of the election platforms
After the elections	CPB-analysis of coalition agreement
Some months after the elections	The new medium-term framework based on new CPB-estimates for the Dutch economy

Step 1. New medium and long term estimates by CPB

One year before the elections, the road to a new coalition agreement and medium-term fiscal framework starts. CPB makes provisional estimates of the Dutch economy and public finance in the medium term. These estimates are later updated and supplemented with an analysis of Dutch public finance in the long run, e.g. to what extent is Dutch public finance sustainable in the absence of any policy change? This analysis will be discussed in section 2.4.

Step 2. The advisory group on fiscal policy

All these estimates serve as inputs for the advisory group on fiscal policy[8]. The government makes explicit which topics should at least be addressed by the advisory group. This group writes a report evaluating past budgetary procedures and making recommendations for the fiscal targets and rules for the next period of government. The Ministry of Finance serves as the secretary of the advisory group. CPB provides the estimates on the economy and public finance and is often asked to take a further look into some specific issues, e.g. conduct an analysis of the consequences of alternative assumptions and principles.

[8] In the early seventies, the first advisory group served to indicate a maximum size of the government deficit and to investigate all kinds of constructs used for financing outside the central government's official budget. The reports by the advisory group were sometimes published as annex in the official budget. However, since the eighties, the report by the advisory group on fiscal policy is published as a separate report.

Step 3: CPB analysis of election plans

A unique feature of the Dutch tradition is that CPB publishes an analysis of the economic effects of election platforms of political parties. CPB conducts this analysis at the request of each political party. This analysis will be discussed in section 2.5.

Step 4. CPB analysis of the coalition agreement

CPB provides also an analysis of the (provisional) coalition agreement. The previous analysis of the election plans is therefore a great help to make such an analysis. When no entirely new policy measures are proposed, a standard analysis (i.e. check on the plausibility and feasibility of the measures proposed and their ex ante budgetary implications, macro-economic effects and effects for purchasing power) can be made within some days.

The Ministry of Finance ultimately calculates the medium-term framework. For example, the level of the real expenditure ceilings is fixed considering the coalition agreement and the most recent information about expenditure and revenue. Other Ministries, in particular those on social affairs and health care, may also have a clear opinion on the development of the expenditure of their Ministry. Estimates by CPB serve as a critical benchmark for fixing the medium-term fiscal framework; this applies in particular to those on social security, taxes and health care.

This process for deciding on a new coalition-agreement implies that policy measures are checked in an early stage on their feasibility and consequences on the national economy and public finance in the medium term and long run. Before the elections, the policy measures proposed by all major political parties are analysed. In drawing up the coalition agreement, also the policy measures in the successive drafts are analyzed.

2.4 Analysis of sustainable public finance

Following the seminal work by Auerbach, Gokhale and Kotlikoff (1991), in 1997 CPB started to calculate generational accounts for the Netherlands (see ter Rele, 1997). These calculations have been improved, extended and updated regularly (see ter Rele, 1998, van Ewijk, et al. 2000 and 2006 and van der Horst et al, 2010). These calculations demonstrate that current policy arrangements (taxes, public expenditure on social security, education and health care, subsidies, etc.) in the Netherlands are not sustainable due to the costs of ageing and the exhaustion of the natural gas resources. They also show the consequences of alternative policy measures to reduce this gap for different generations. This forward looking approach of generational

accounting is the new paradigm for Dutch public finance[9]. This reflected by the names of the reports by the important advisory group on Dutch fiscal policy: "Stable and sustainable budgetary policy" (2001) and "Ageing and sustainability" (2006).

The new key-word for Dutch public finance is therefore sustainability. A country's public finance are said to be sustainable when its current institutions (like the tax system, pensions, and the public health system) can be maintained without public debt exploding. The requirement of sustainability can be supplemented with some normative criterion regarding the distribution of the tax burden across generations. For example, the Musgrave criterion stipulates that each generation's contribution to public finance as a share of their lifetime private wealth should be constant. CPB reports on the extent to which the actual burden sharing deviates from this Musgrave criterion. This means that measures should be assessed not only for their contribution to the public finances, but also for their implications for the intra- and intergenerational distribution of burdens and benefits, economic growth, and political and administrative durability. This will lead to robust choices doing justice to the uncertainties inextricably linked to long-term developments (see Advisory group on fiscal policy, 2006, p. 5).

The ageing study by the CPB in 2000 (see van Ewijk et al., 2000) was a major step forward, as it incorporated behavioural effects of policy changes by extending the bookkeeping-identities of the generational accounts with an applied general model equilibrium model (GAMMA, see also Draper and Armstrong, 2007).

Since 2005, the generational accounts have been extended with an analysis of the redistribution of current Dutch policies over the life-cycle (ter Rele, 2005 and 2007). On a lifetime-basis, the size of redistribution depends on the net effect of the separate arrangements at different stages of the life cycle; they are to some extent counterbalancing. For example, in the Netherlands, high lifetime income earners typically feature a high lifetime tax burden and low benefits from health care relative to low lifetime income earners. However, they are also relatively large beneficiaries from government expenditure on education, cultural facilities, housing subsidies and tax favoured saving through the second pillar pension system. The life-cycle approach gives a new view on a fair and efficient policy of redistribution. For example, the life-time marginal wedge on labour income can differ substantially from the annual wedge.

The ageing study published this year by the CPB (van der Horst et al., 2010) contains two major improvements:

- The distribution of net benefits from the government over generation does not only take into account of current and (possible) future government arrangements, but looks also at the net benefits received since the Second World War;

[9] Mid1990's, Dutch politicians explicitly addressed the issue of sustainability by creating two funds: the FES-fund and the old age state pensions-fund. These would help to ensure sustainability of Dutch public finance in view of the exhaustion of natural resources and the expected rise in old age state pensions due to ageing. However, the funds were just accounting devices that could be cancelled against public debt (see Bos, 2008).

- The importance of investments in education, infrastructure and environment for the distribution of welfare over generations is explicitly addressed.
  Some results of this new study are discussed in 3.5.

Since 2002, the analysis of sustainability of Dutch public finance has been incorporated in the analysis of election plans and (provisional) coalition agreements (see section 2.5). As a consequence, the consequences of these alternative policies (e.g. cuts in transfer programs and specific tax increases) for sustainability of public finance are made explicit before elections are held or before the coalition agreement of the new government becomes final.

For some years, the European Commission publishes regularly estimates of the sustainability of its member states' public finance using a common methodology. The CPB analysis is more advanced, more focused on taking into account the specific features of the Dutch economy and institutions (e.g. including the tax revenues from funded pension benefits) and more up to date (e.g. taking into account all recent policy measures). As a consequence, the published results may differ substantially. Such national analyses are crucial to understand the underpinning, implications and uncertainty of such standard European analyses (e.g. what does the assumption of unchanged policy agreements entail in other countries?) and to provide good input for European fiscal policy discussions.

2.5 Analysis of election plans of Dutch political parties

In March 2010, the CPB compared the election plans of nine Dutch political parties and analysed their economic consequences (see CPB, 2010). Figures 2.1 and 2.2 provide an overview of their budgetary choices and table 2.4 gives an overview of the major economic consequences; these include consequences for the environment.

It is obviously not possible to sum up the ideas and measures of parties in respect of a certain field under a single indicator. The analysis covers numerous indicators for each subject and even then the analysis remains of a general nature. Parties can also achieve a similar result through completely different interventions. Two examples: accessibility can be improved by investing in roads, but also by introducing road pricing. Prosperity gains are attainable in the housing market by limiting tax relief on mortgage interest, but also by liberalising the rented homes market. Parties make completely different choices in this respect.

Figure 2.1 **Budgetary choices by 9 Dutch political parties in 2010: Six major policy functions (net change in public expenditure and taxes and premiums, euro bln)**

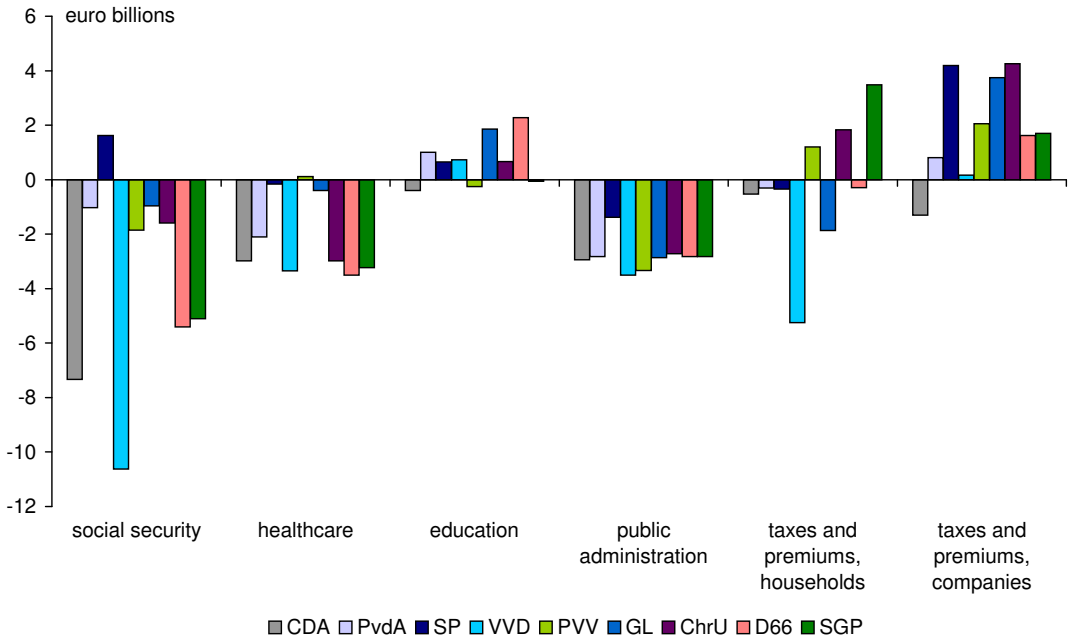


Figure 2.2 **Budgetary choices by 9 Dutch political parties in 2010: Seven other policy functions (net change in public expenditure, euro bln)**

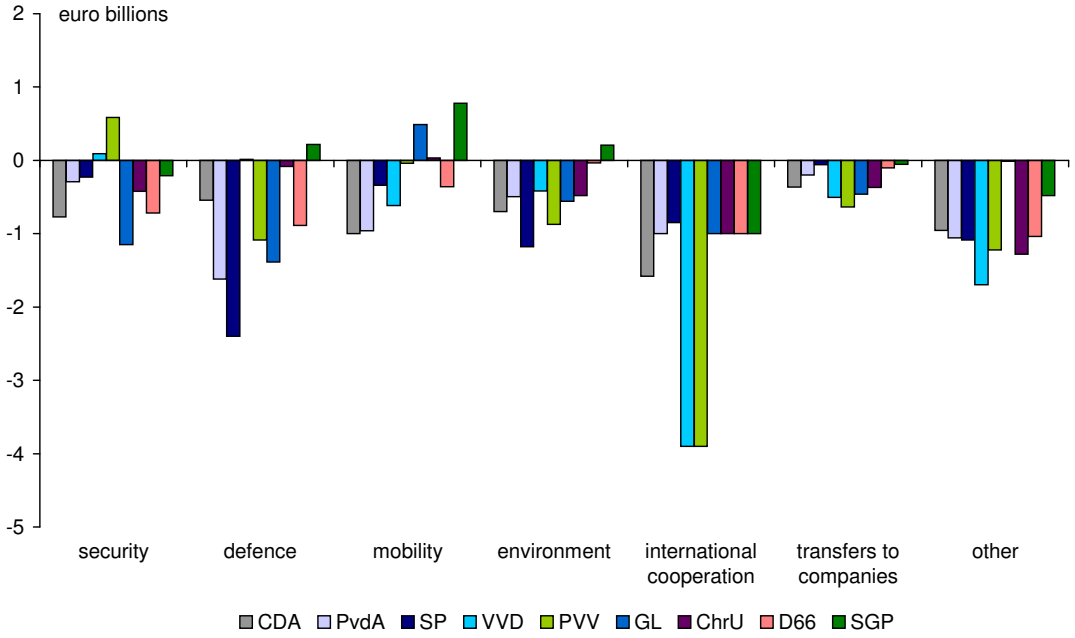


Table 2.4 The economic consequences of the election plans of 9 Dutch political parties in 2010: Summary overview (changes relative to basis, unless otherwise mentioned)

	CDA	PvdA	SP	VVD	PVV	GL	ChrU	D66	SGP
Improvement EMU-balance 2015 (euro bn; ex ante)	18	11	10	20	15¾	10¼	16	14¾	18
Sustainability of public finances (euro bn)	33	31	16	39	17	35	35	37	32
Purchasing power of households 2015 (euro bn, ex ante)	– 3½	+ ¼	+ 1¼	– 1½	– 2	0	– 2¾	– 3	– 8
Profits of companies 2015 (including housing corporations) (euro bn, ex ante)	+1	– 1	– 4¼	– 1¼	– 2¾	– 4¼	– 4¾	– 1¾	– 1¼
Structural employment (% point)	4	2½	– 1	5¾	¼	4½	1¼	3¾	2½
Accessability by public or private transport (welfare gain, bn euro)	¾	¾	– ¼	¼	¼	– ½	½	¾	½
Car usage (2020, in %)	– 10 à – 15	–10 à- – 15	0	0	0	– 20	– 10 à –15	– 10 à- – 15	– 15
Public transport usage (2020, in %)	+5 à 10	+5 à 10	+ 5	0	0	+ 15	+5 à 10	+ 10	+5 à 10
Reduction of greenhouse gases (Mton Co2)	36	44	21	2	2	63	38	31	28
Quality of nature (2020)	0	+	+	– –	–	++	0/+	0/+	0
Quantity of nature (2020)	0	+	0/–	– –	–	+	0	0/+	–
GDP effect education (structural, %)	2¼	4¾	¼	4	¼	4¼	1¾	3¼	3¼
Science/innovation 2015 (budget, mld euro)	– 0.07	– 0.2	– 0.06	– 0.1	– 1.2	+ 0.4	– 0.33	+ 0.2	+ 0.22
Housing market (welfare gains % bbp)	0.1	0.5	0.4	0.3	– 0.1	0.8	0.5	0.9	0.7
Change in house prices (2015, %)	– 1	– 7	– 6	– 2	0	– 6	– 5	– 10	– 6
Change in net rent (2015, %)	5	1	– 3	10	0	6	6	10	8
Health care, employment, 2015, thsnd)	– 10	– 15	+15	– 50	+10	+15	– 30	– 40	– 35
Own risk health insurance (2015, level, euro)	230	200-600	0	300	210	150-300	200-600	210-400	150-500
More (+) or less (–) market forces cure	+	0/+	– –	++	0	0/+	+	++	+

This comparison and analysis was the seventh time in twenty-five years. Due to the unexpected fall of government, time restrictions were very severe. Election date was set in such a way that political parties could draw up an election plan and CPB could make a very quick analysis; this illustrates the importance attached to the CPB analysis, in particular in such times of financial hardship.

The Dutch tradition analysis of election plans by CPB started in 1986. In the first half of the nineteen eighties, the Dutch economy was facing hard weather: high unemployment rates, high government deficit and rapidly rising government debt and low economic growth and profits. In order to restructure the Dutch economy and public finance, major steps had been taken for fiscal consolidation. Nevertheless, in 1986, the Dutch economy and public finance were still in serious trouble. When the CPB had just published its macro-economic forecasts for the new period of government, the three major political parties asked also to investigate the economic consequences of their election plans. To what extent would these plans help to increase

economic growth and improve public finance? And what would be the consequences for unemployment and the purchasing power of various groups of households?

During the last twenty-five years, this analysis was improved and extended and adjusted to take account of major current policy issues (e.g. health care or social benefits for the disabled). An overview of this development is shown by table 2.5.

Table 2.5 CPB analyses of the election plans of Dutch political parties (1986-2010)

	1986	1989	1994	1998	2002	2006	2010
Number of political parties	3	4	5	5	8	8	9
Ex ante analysis							
Effect on government deficit	x	x	x	x	x	x	x
Overview of major budget cuts, extra expenditure and tax measures	x	x	x	x	x	x	x
Detailed overview of policy measures			x	x	x	x	x
Overview of policy measures by function					x	x	x
Effect on employment in the government and health care sector					x	x	x
Effect on purchasing power and profits (added ad hoc in order to partly compensate for the absence of ex post analysis)							x
Ex post analysis							
For core set of macro variables: effects during next period of government	x	x	x	x	x	x	1)
Health care		x			x		x
Long run effects on labour market		x	x	x	x	x	x
Long run effects on environment and mobility			x	x	x	1)	x
Long run effects on government finance					x	x	x
Long run effects of education and innovation proposals						x	x
Long run effects on housing market							x
Scenarios for sketching uncertainty			x	x			

1) Not done due to time restrictions following the fall of government

The CPB study makes it possible to compare the parties' election plans on economic aspects. Key elements of the analysis are the implications for public finance, for the economy, for purchasing power and the environment.[10] As far as the budgetary effects are concerned, CPB devotes attention to the implications of the proposed measures for the revenues and expenditures of the public sector as a whole (general government budget balance, debt and sustainability in the long run).

[10] The macroeconomic effects concern the implications for the Dutch economy, specifically those for structural GDP, employment in the private and public sector, consumption, wages, inflation and so on. The purchasing power effects cannot be easily expressed in a single figure, because the implications of the party programmes may differ widely between types of households. These effects are therefore expressed in a scatter diagram and by means of specific figures for different groups of households.

Now for over a decade, the title of the CPB study on election plans is 'Charting choices'. It helps to broaden understanding of the contents of the parties' election plans and extends their comparability in several ways:

- The official election plans of political parties are generally rather vague. In order to allow a meaningful analysis of the effects on the government budget, economic growth and purchasing power of various groups of households possible, the political parties should generally be much more specific. For example, if subsidies are to be cut, which specific subsidies are intended to be cut? If expenditure on education and health care are to be increased, by how much? If taxes are to be reduced, expenditure on specific issues are to be increased (e.g. roads and education) and government deficit is to be reduced, what are the budgets cuts proposed? How are traffic jams to be reduced, e.g. without road pricing only massive investments in roads or public transport will make a difference.
- CPB includes in its analysis only measures which are expected to be technically and legally feasible. Also economic arguments may be used to discard policy measures as not realistic or having quite different budgetary consequences. For example, in the election plans of this year, various parties proposed a cut in the wage rates of civil servants. However, the CPB did not think this would result in a true saving at the end of the new period of government, as the Dutch labour market is still quite tight and Dutch civil servants do not seem to be overpaid in comparison to their counterparts in the market sector; for type of civil servants (e.g. teachers and police) a raise in salary would better reflect market conditions.
- The same underlying economic scenario is used to evaluate each election platform, so that differences in outcomes cannot be due to diverging assumptions about the economy.
- Since CPB evaluates the proposals of all parties in uniform way, the parties cannot exaggerate the benefits and/or understate the costs of their proposals or enjoy free lunches.[11] The CPB analysis tries to capture major trade-offs, e.g. between economic growth and equity and economic growth and the environment, and tries to avoid a biased and short term perspective. Four years ago, for the first time an analysis was included on education, science and innovation. The proposals by the parties were classified, on the basis of empirical research, into promising, not promising and proposals that can not be judged along these lines on the basis of such

[11] Commonly suggested free lunches are e.g. using natural gas reserves or the financial assets of social security funds or local government to 'finance' extra government expenditure or to reduce taxes. However, these can never be considered as an extra or new source of finance, as they are already taking into account in the EMU-government balance and in calculating the sustainability of Dutch public finance. A substantial levy on the private social housing corporations is often also proposed. This is probably also not a free lunch: the improvement in EMU-government balance can be achieved at the price of an increase in the rents charged by the social housing corporations and therefore reducing the purchasing power of relatively poor tenants. Cutting subsidies and reducing the number of civil servants seem also to be free lunches. However, when political parties have to specify their proposal, these proposals are not a free lunch anymore. For example, reducing the number of civil servants of the central government by 20% would imply that all major units are cut by this percentage. However, 25% of the number of civil servants of the Dutch central government is the tax office, 30% consist of police, prison and administration of justice and 8% work on road maintenance or planning new infrastructure. Political parties are generally not willing to make major cuts in these units of central government. As a consequence, by having to specify their plans they usually also substantially modify and reduce their proposed budget cuts.

research. In this year's analysis also the consequences on structural economic growth were assessed.

- The proposals are presented in a comparable way, so that parties' commitments can be compared to each other.
- CPB systematically investigates proposals and helps improving them on the technical side. For example, what subsidies or tax expenditure is most effective for stimulating R&D? Or, what are the best tools for improving the purchasing power of households with children or of the elderly poor with 1%? In practice, many proposals are adjusted during the process, following the feedback by the CPB.

There has been an extensive debate on the merits of this exercise.[12] The main objections seem to be threefold.

First, the exercise might constrain the political debate too much, by CPB disapproving proposals on what are presumably technical arguments. For some topics, this might be asking too much of what economic science can provide.

Second, the exercise might bias the debate in the direction of proposals of which the effects can be calculated in a simple way, since CPB cannot evaluate the benefits of other proposals. For example, the economic effects of major reform of the institutions in health care – introducing a free market for hospitals: allowing the free entry of privately funded hospitals and allowing loss making hospitals to go bankrupt- are hard to assess. Nevertheless, this seems to be a sensible idea. How to deal with this type of ideas in the context of an evaluation of the election platforms? Similarly, CPB's scepticism regarding the availability of free lunches might in fact favour small groups of insiders who collect large rents that could potentially be extracted to the benefit of the wider public. The scepticism regarding the feasibility of such reforms acts as a conservative force.

Third, the exercise might bias the debate in favour of the short run implications, since the longer run implications are much more uncertain and materialize beyond the next government period. This matters in particular where the short run implications are mainly of Keynesian nature and where the long run implications refer to the improvement of economic structure – better incentives and the like-. In response to latter objection, CPB has shifted the attention away from the short run Keynesian effects towards the sustainability of public finance and towards the structural effects on long term GDP, for example due to the reduction of replacement rates. For example, the MIMIC model, see table 2.1, has been constructed to assess the structural effects of changes in replacement rates and marginal tax rates on labour supply.

The study comes in handy after the election, during the formation of a new coalition agreement. It is a good starting point for negotiating the terms of a coalition agreement. This applies not only to the proposals of parties involved in the coalition agreement. In practice, CPB

[12] On the merits and limitations of this analysis, see also the papers in Graafland and Ros (2003).

overview serves as a data base on all kinds of policy measures that could be considered during the negotiations; in particular the budget cuts and extra revenue generating measures by other parties are a popular source of inspiration.

2.6 The annual budgetary process

The annual budgetary process is summarized in table 2.4. CPB plays a role in this process at two points in time:

- CPB provides the macro-economic estimates for the budget, e.g. of economic growth, prices, wage rates and long term interest rates. As a consequence, the estimates of the Ministry of Finance on Dutch public finance are based on the most recent CPB forecasts and not on their own macro-economic assumptions. The macro-economic forecasts by CPB play also an important role in wage negotiations for the public and private sector.
- CPB provides elaborate estimates on Dutch public finance (see Bos, 2008 table 2.3 for an overview of the standard tables and Bos, 2003b for a more extended explanation). As a consequence, there is always a critical benchmark for the estimates on Dutch public finance by the Ministry Finance. An essential feature of CPB-estimates is that they can be based on the most recent budgetary information and decision-making, even when this information is not yet officially published.

CPB publishes forecasts every quarter. Two of these forecasts are published as a special publication with an official status, the *Central Economisch Plan* in March and the *Macro Economische Verkenning* in September. The forecast is supplemented with an in depth analysis of the state of the Dutch economy, with attention for special topics.

These publications are discussed in a meeting of the Cabinet. Though this discussion is helpful in that it offers a platform for a free exchange of ideas between CPB and the Cabinet, it comes at a cost. First, it yields a larger time lag between finalization of the forecast and their eventual publication. An additional problem is that as a rule the provisional forecast are leaked to the press. Leakage to the press is a more general problem, since it hampers consultation of ministries to avoid factual mistakes regarding actual policy and current reform proposals (such mistakes greatly undermine the credibility of a study). It also makes it close to impossible to allow politicians time to think about a proposal before having to give a first public response. Second, the Cabinet uses the meeting for putting pressure on CPB to influence parts of the analysis that do not fit the views of the Cabinet. This practice undermines the reputation of CPB as an independent institute.

Table 2.6 The annual budgetary process (T is the budget year)

Due dates	Activities
November T-2	Budget circular from Ministry of Finance to line ministries to start internal preparations
January/February T-1	Provisional "Central Economic Plan" by CPB to ministries containing updated macro-economic and public finance estimates for the budget year and beyond.
February T-1	Line ministries send policy letters to Ministry of Finance indicating spending priorities and likely budgetary developments
March/April T-1	Preparation of recalibrated multiyear expenditure framework, with proposed shifts in allocations/cutbacks brought to cabinet by Ministry of Finance, based on policy letters
March T-1	"Central Economic Plan" published by CPB on the basis of unchanged policy
April/May T-1	Decision by cabinet on expenditure side of the budget. Sent out by Ministry of Finance to line ministers in "Totals letter"
May/June T-1	Detailed negotiations between Ministry of Finance and line ministries on composition of their budgets
Early June T-1	"Provisional Macro Economic Outlook" by CPB to ministries; this contains updated estimates on the Dutch economy and public finance; this incorporates new fiscal decisions
June T-1	"Spring memorandum": parliament is informed on outline of current years budgetary plans and on budget execution in first quarter
August T-1	Further fine-tuning of budget on the basis of provisional macroeconomic outlook provided by CPB to ministries and decision-making on the income side of the budget
3rd Tuesday September T-1	Submission of State budget to parliament together with CPB's Macro-economic outlook (MEV)
September T-1	Discussion of State budget in second and then in first chamber of parliament.
Before end December	Approval by both chambers of parliaments of all budget chapters

2.7 Cost-benefit analysis

Expenditure on infrastructure, monuments, knowledge and information financed via the natural gas fund and major infrastructure projects financed in other ways by the Dutch central government are subject to cost-benefit analysis. All these cost-benefit analyses (see e.g. Dijkman and Verrips, 2002) should comply with the new national guidelines on cost-benefit analysis, e.g. with respect to the social discounting rate, the risk premium and the inclusion of indirect effects (see Eijgenraam et al. 2000 and CPB, 2003a). CPB and Ecorys (a private economic consultancy firm) have jointly issued the guidelines. Some years ago, these guidelines have been evaluated in view of the most recent economic insights. At present, a major part of the cost-benefit analyses for government financed projects are not done by CPB. However, CPB provides a check (a second opinion) on the quality of these analyses and their compliance with the national guidelines.

There is some tendency for an ever-widening field of projects to be subjected to a cost-benefit analysis, e.g. not only for roads and bridges, but also for purchasing American fighter planes, raising the salaries of teachers or subsidies or tax expenditure for innovative

investments. At the same time, the enormous impact of the outcome of a cost-benefit analysis on the final decision evokes considerable animosity among stakeholders.

A typical example is the Betuwelijn, a railway-track from Germany to the Rotterdam harbour. It also initiated the reintroduction of cost-benefit analysis at CPB[13]. The government was not at all happy with CPB's conclusion that this was a bad idea. Nevertheless, the Betuwelijn has been constructed. Today, transporters are not even willing to pay a marginal fee for using the railway-track.

The role and merits of cost-benefit analysis for economic decision-making is often misunderstood. It serves various purposes:

- It makes costs and benefits explicit, preferably in quantitative terms; it shows timing, uncertainty and risks. It can show not only economic consequences (e.g. for income and employment), but also major consequences on the environment.
- It includes a comparison with alternatives serving the same purpose.
- It can allow a comparison with projects serving different purposes asking public funding.
- It can help selecting the most promising proposals, which are then to be considered and worked out in more detail.
- It can play a major role in formulating the best proposal with commitment by all public and private stake-holders. By making the positive and negative external effects explicit, they could suggest the fair contribution by the public and private parties. This may include compensation for negative external effects in cash or in kind or extra measures to be taken to directly reduce such negative external effects (e.g. a sound barrier to reduce noise from traffic).
- It serves a role in communication, e.g. in justifying public funding for projects.

In order to improve economic decision-making, cost-benefit analysis should be conducted by independent experts using a good quality methodology. However, even then, some serious problems still remain, e.g. uncertainty about the economic effects like the size of agglomeration effects, uncertainty about future developments, costs are often underestimated and benefits overestimated (see e.g. Flyvgberg et al., 2003) and the proper discounting rate (e.g. long term effects may be better taken into account by a lower discount rate cf UK practice). It is often also claimed that cost-benefit analysis has a bias against imaginative and innovative projects, like the Sydney opera house, the Golden Gate Bridge in San Francisco, the Swan bridge of Rotterdam or deep tunnelling in muddy grounds for the Amsterdam metro. However, economic science recognises the economic value of brands and innovations. These could therefore also be included in the cost-benefit analysis.

[13] In 1954, under the supervision of Tinbergen, a cost-benefit analysis was made of the Delta works. After budget cuts in the early eighties, such project appraisals were scrapped at the CPB.

OECD (2010a, pp. 81-108) has evaluated the Dutch transport system and the role of cost-benefit analysis. Its major conclusions are:

- "The parameters in the guidelines (e.g. to value private travel time, fatalities and the discount rate) are in line with international averages (Odgaard et al. 2005)" (p. 91)
- Systematic ex post evaluations for infrastructure projects should be introduced and be used to improve the cost-benefit analysis methodology.
- Improve the transparency and public availability of the results of cost-benefit analysis and require explicit justification in cases where these results are overruled. For example, to what extent play equity considerations not incorporated in the cost-benefit analysis a role?

Koopmans (2010) provides a cost-benefit analysis of cost-benefit analysis by the CPB during the past decade, i.e. since the Dutch national guidelines on cost-benefit analysis exist. He claims that the benefits have been much larger than the costs:

- For major infrastructure projects (more than 0.5 bln euro), a negative verdict by the CPB resulted always in delay or cancellation; a positive or neutral verdict was mostly followed by a decision to start. For minor projects, the situation was somewhat different. Despite a negative verdict by the CPB, several infrastructure projects were nevertheless started.
- The national guidelines have increased the consensus among Dutch researchers about the methodology; in general, the CPB verdict is accepted and only for the analysis of some specific subjects differences of opinion still exist.
- The national guidelines have not resulted in consensus with major stake holders about the method. Some stakeholders argue that if the method results in a negative verdict, it is a defect of the method and not of their project. For many policy-making officials, cost-benefit analysis is also too complex, very technical and difficult to understand.
- The total value of the projects cancelled because of a negative verdict by the CPB was about 30 bln euro and its welfare-loss about 20 bln euro. Such very costly projects could also have been cancelled without any role by the CPB. Suppose the cost-benefit analysis by the CPB avoided 10% of this welfare loss, i.e. 2 bln euro. The costs in terms of labour and overhead were approximately 120 million euro during this period. He concludes therefore that investing in cost-benefit analysis is much more profitable than investing in major infrastructure projects.

2.8 Participation in advisory groups

CPB participates in many groups advising the government. The most important is the socio-economic council (*Sociaal Economische Raad,* SER).

The SER started in 1950 and reflects the Dutch consultation economy, i.e. the joint effort by the government, employers and employee to rebuild the Dutch economy. The 33 members of

the SER consist of 11 representatives from the employers' organisations, 11 representatives from the trade unions and 11 independent experts, like the directors of CPB and the Dutch central bank and academic scholars. CPB provides also all kinds of technical support, e.g. economic analysis of major issues.

The SER's primary function is to advise the Dutch government and the parliament on social and economic issues, with the aim of promoting balanced economic growth and sustainable development, the highest possible level of employment and a fair distribution of income. Upon request or at its own initiative, the SER advises the government on the main outlines of policy. The arguments put forward by the SER are also used by parliament in its debates with the government. Issues covered include medium-term social and economic developments, regulatory issues, social security, labour and industrial law, the relationship between the labour market and education, European policy, environmental planning and traffic accessibility, sustainable development and consumer affairs. The SER's advisory reports are usually published in book form and are available to the public. The recommendations in these reports are not binding. The government is not obliged to follow the SER's advice, but informs the SER in detail of whether or not the advice will be followed, and why. In order to carry out proposed policies, the government requires broad social support. The opinion it receives from the SER – unanimous or divided – allows the government to determine whether it has sufficient support among the various representative members.

CPB also participates in various other advisory groups, like the Council for Economic Affairs (CEC, consisting of the top civil servants of the various Ministries on socio-economic issues and the directors of CPB and the Central Bank) and the many interdepartmental policy evaluation groups.

2.9 How to ensure independence, quality and relevance?

The role of CPB in Dutch politics is precarious. Key-questions are:

- How can CPB serve as an independent expert, while being financed completely by the Dutch government?
- How can the quasi-monopolistic role of CPB coincide with a good quality of the estimates and analyses?

The Bureau's reputation for political independence is a precondition for the credibility of its judgements on policy issues. On the one hand, this independence implies that CPB is free in the choice of research topics and the conclusions that can be drawn from them. On the other hand, CPB's independence requires CPB not to interfere in the political debate and in the competition between political parties for the support of the voters.

Its core business is providing arguments derived from economic theory for how to improve economic policy. CPB tries to articulate these arguments as clearly as possible— and to as wide an audience as is willing to learn about them. However, convincing voters that they should support the one policy above the other is the prerogative of politicians. CPB aims not to interfere in the competition for votes between political parties.

This rule of conduct implies that CPB has a greater freedom in putting forward arguments in the initial stage of the debate on a certain topic, when political parties have not yet taken a strong stance on the topic. CPB times the publication of its research accordingly. The Bureau tries to be ahead of the debate— in its publication[14] exploring employment protection and its implications for the labour market for the elderly, for example, or in its study[15] of the impact of ageing for the government budget and for intergenerational fairness. When a debate on a certain topic is running between political parties or between other interest groups, CPB makes a judgement only upon the request of the parties involved or when such a judgement is expected by the general public. CPB tries to avoid being an arbitrator without a mandate; though in practice CPB is often asked to do so.

The independence of CPB is arranged in various ways.[16] First there is the formal structure, as laid down in the law of 1947. It is a very short and simple law, which regulated e.g. the appointment procedure of the members of the Board of Directors and the existence of the Central Planning Commission (CPC). Formally, the CPC is just an advisory body, but the management of CPB tries to the maximum to treat it as a supervisory body as to preserve CPB's public accountability while precluding any form of intervention of the Minister of Economic Affairs, to whom the director of CPB is formally subservient.

But more important than formal law are tradition and practice developed in Dutch social-economic life for forty years, which have strengthened the independent position of the Bureau. These traditions are engrained in procedures and rules of conduct, which all parties involved observe in great detail.

For example, CPB organize is press presentation on the publication of March forecast in the CEP, but does not on the publication of the September forecast in the MEV, since that publication coincides with the discussion of the budget in parliament. A press presentation at that point in time would interfere with the political discussion. Any change in these of rules of conduct causes turmoil. These rules of conduct provide a focal point in the "bargaining" about the degree of independence that CPB is allowed. At first sight, these procedures seem only to limit CPB's independence. However, they are a precondition for the authority that is attributed to CPB's judgement by all parties involved, the Cabinet, the parliament (both opposition parties and parties represented in the government), and the wider public.

[14] See Euwals et al (2009).

[15] See van Ewijk et al (2006).

[16] See also Don and van den Berg, 1990, pp. 20-21

The main drawback of these rules of conduct is that they hard to change, and therefore remain in existence even when they are dysfunctional. For example, the one-month time lag between finalization of the March forecast and the eventual publication is engrained in these traditions, but hinders a proper communication to the wider public. Nevertheless, this practice is hard to change.

The position and prestige of the Bureau would be seriously weakened, if the general public or the oppositional parties would no longer trust its unbiased judgement. Hence, transparency is a crucial condition. All assumptions and data that underlie our analyses are public and verifiable. Pressure put on CPB by Ministers or Ministries evokes counter forces. The parliament and the press are quick in scenting trouble. The permanent Parliamentary Commission for Economic Affairs regularly invites the Director of CPB to discuss recent publications of the Bureau. This Commission is also keen on any hint of pressure of the government on the Central Planning Bureau. The civil service tries to avoid ministers to contact CPB directly as to avoid the public image that CPB is suspect to pressure from the government. And the free press is perhaps the best ally one can have to protect independence in an open democratic society.

Though this practice is not formally approved, the director of CPB decides on CPB's research programme. This practice is crucial. For example, the ageing study, that has nowadays developed to be the cornerstone for evaluation of the long term budgetary situation, would not have been developed with the consent of political body. Obviously, CPB asks all ministries involved for suggestions on topics for the research programme, but CPB is free to set its own priorities. CPB receives advice on its research programme from the CPC. Again, for reasons of accountability, the directorate takes this advice very seriously and tries to view CPC as a supervisory instead of a advisory body.

About every five years, both the policy relevance and scientific quality of CPB work are assessed by visitation committee. These committees are appointed by CPC and report to the CPC. All members of the committee for policy relevance are Dutch, but the committee for scientific quality is made up of international experts, only one member being Dutch (see e.g. CPB, 2003c, 2010). The most recent scientific committee was chaired by Martin Hellwig.[17] The committee concluded that CPB provided high quality work on the crossroads of academic research and policy making, that its methodology is up-to-date and up-to-standard. Scientific quality could be further enhanced by a more systematic effort at publishing in academic journals and a more systematic use of links to the academic community. The Committee states that too many resources are devoted to this kind of model-building at the expense of other forms

[17] The 2003-committee was chaired by K. Zimmermann (IZA, Germany). Other members of the 2010 committee were R. Boadway (Queens university, Toronto, Canada), J. Elmeskov (OECD), R. Griffith (IFS, United Kingdom), T. Andersen (University of Arhus, Denmark), and S. van Wijnbergen (University of Amsterdam, Netherlands).

policy-relevant empirical work, including a more thoughtful use of theory to guide descriptive analysis and reduced-form empirical work.

2.10 Merits and risks of the role of CPB

The role of CPB in Dutch political decision-making can be summarized as:

- CPB serves as the independent and trusted source of information and expertise on the (Dutch) economy and public finance. CPB does not only serve the government, but also many other stake-holders, like political parties of the opposition, trade unions, employers' organizations and citizens.
- CPB provides a new type of information: forecasts and applied economic analysis tailored to the Dutch economy and policy agenda. It bridges the gap with academic economic knowledge and the gap with practical policy issues.
- CPB is fully embedded in the Dutch political decision-making process. As a consequence, the procedures and timing of the decision-making process is organized in such way that CPB forecasts and analyses can be used efficiently and effectively.

The role of CPB fits in the Dutch way of political decision-making. Major characteristics are:

- The Dutch Polder-model of negotiation and consultation with major stake holders, e.g. employers' organizations and trade unions;
- Governments based on changing coalitions of political parties;
- The trust in objective analysis by independent experts. Tinbergen's view of the economist as advisor of the government is still very relevant for CPB activities: show the consequences of alternative policy measures on the various policy targets. This implies also that the number of tools should at least be equal to the number of policy targets.

Economic theory gives many reasons why political decision-making will not be efficient, effective and fair. An institution like CPB can help to improve decision-making on fiscal policy[18]. It can become *more efficient* by reducing the transaction costs for all parties involved. These transaction costs are lowered by the role of CPB due to:

- More mutual trust (within and outside government) and less uncertainty;
- Better and less a-symmetric information. For example, without an institute like CPB the Ministry of Finance generally has better information than other Ministries and those outside

[18] See the references in footnotes 1,2 and 3. For a theoretical analysis, see also e.g. von Hagen (2002), Martimort and Semenov (2008) and Krogstrup and Wyplosz (2010).

government on the need for budget cuts and on the merits and limitations of specific fiscal rules.

- And good procedures for using information from experts like CPB, e.g. before the start of a new period of government.

Decision-making of fiscal policy can also become *more effective* for various reasons:

- More rational, better informed and less short-sighted decision-making. This applies to e.g. the effectiveness of various policy measures and their consequences for the government budget, economic growth and the purchasing power of various groups of households. It can also apply to the long run expectations on the sustainability of public finance.
- Less room for emotional and flawed arguments;.
- Less room for misrepresentation of circumstances (e.g. a biased forecast of economic growth by the Ministry of Finance), policy plans (too vague, unrealistic) and their economic consequences.

Decision-making can also become *fairer and more serving the public interest* due to an institution like CPB:

- Less vulnerable to specific lobbies or unintended consequences (e.g. about the purchasing power of various types of households);
- Clear procedure with input by experts and stake-holders stimulates transparency and fairness of decision-making.

This is all in line with the statement by Coats (1989, p. 118) that the most valuable contribution of economists is "damage minimization by modifying, refining, or even blocking the ill-considered policy proposals by laymen - for example, by emphasizing the opportunity costs of a given action or, more broadly, the system-wide implications of a specific policy".

The comprehensive role of CPB can be efficient in producing and communicating economic insights and can help to overcome information and coordination problems in political decision-making. The role of an institution like CPB is in particular important in case of major unexpected developments and when substantial fiscal consolidation is needed**.** The OECD has studied the political economy of reform and concludes that:
"reform institutions, like Australia's Productivity Commission or the Dutch CPB ... can serve as fora for study and negotiation and help de-politicise sensitive reform issues. Even if they do not actually design the reforms or resolve distributional conflicts, they can ... make progress easier by fostering consensus on certain basic issues, including the costs and benefits of both the status quo and reform.... They can also improve the quality of policy making, by providing research and analysis to inform the process, as well as a forum in which issues can be debated openly

and research findings scrutinised. ... permanent reform institutions with a fairly broad remit may be less susceptible to capture by specific interests than those that are specialised in very specific areas" (OECD, 2009, p. 52).

A major risk is the division of tasks between an expert institute like CPB and the political process, and the need to respect each others prerogatives (see also section 2.3). Experts like CPB should show economic consequences, alternatives, trade-offs and uncertainty, but refrain from becoming an active player in the political arena. A somewhat technocratic and dispassionate attitude of the expert (e.g. in terms of language and appearance in the media) is advisable. However, it should not imply that politically sensitive topics or solutions are evaded by the official expert. Politicians should leave room for official experts to voice their opinions, ensure their independence and the quality of their work.

Another risk is the quality of CPB activities. This issue was already discussed in section 2.3. A specific issue that can be easily checked and compared is the quality of GDP forecasts on economic growth. Jonung and Larch (2004) show that the forecasts by Ministries of Finance are generally biased and that those of independent institutes like CPB and the Austrian WIFO are not biased. CPB made major forecasting errors with respect to the current financial crisis; the average absolute forecasting error for 2009 was 4.8% point! Nevertheless, this was still slightly better than other institutes, like the EC and OECD and the German consensus-forecast by various independent German institutes.

In several respects, the role of CPB in Dutch fiscal policy is unique in the world and reflects typical Dutch circumstances (e.g. a prevalence of coalition governments and the independent position of CPB since World War II). Nevertheless, the Dutch fiscal institutions, procedures and specific rules could be relevant and transferable to other countries. Three examples can illustrate this:

- In countries where political parties try to win elections by unrealistic or inconsistent promises, comparison and economic analysis of these promises by an independent expert institution is useful. Guidance on the economic consequences of the political parties' promises may exert direct influence on the elections. However, the indirect effect on the next government's plans may be even more important in practice.
- For countries that consider the introduction of an independent fiscal council, the Dutch example, with a mix of an independent expert institute and a high-level advisory group can be very interesting. Also the procedure is important: to have a calculation of the sustainability of public finance before the start of a new period of government improves the likelihood that such analyses are taken into account when it matters most.
- For countries that consider the introduction of expenditure ceilings, the Dutch experience can be useful. The Dutch system uses real expenditure ceilings with some success versus the use of nominal ceilings in most other countries. Also issues of coverage of the framework, interest

payments for example are outside, and the link with tax expenditure, is an area where other countries could draw lessons.

The success of the Dutch framework depends on the various evaluation procedures that are in place. For good fiscal institutions, procedures and rules and a clear role in the political process, regular, official and good quality evaluation is crucial. In the Netherlands, this role is played by the official advisory group on fiscal policy, the national court of audit, the interdepartmental policy evaluation groups and CPB. For CPB, also explicit checks have been introduced for ensuring relevance and scientific quality.

3 Dutch fiscal policy in view of the financial crisis and ageing

3.1 Introduction

In 2007, a new Dutch government started. In line with the coalition agreement, it was intended to improve government balance from a deficit of 0.3% GDP in 2007 to a surplus of 1.1% GDP in 2011. Government debt would be reduced with 10% GDP to 37% GDP in 2011. According to CPB calculations of 2006, this would not be sufficient to restore sustainability of Dutch public finance, but would leave a sustainability gap of about 2% GDP.

The financial crisis drastically deteriorated the perspectives of Dutch public finance. New demographic forecasts by Statistics Netherlands indicate that life expectancy in 2050 will be 1.5 years more than previously estimated; this creates an extra burden on government finance.

In February 2010, the Dutch government collapsed and new elections were held in June. A major issue was how to achieve fiscal consolidation. All Dutch political parties agreed that substantial budget cuts and other policy measures were needed to improve sustainability of Dutch public finance (see table 2.4 in section 2.5 and CPB, 2010c). The proposals by left wing and right wing parties ranged from ex ante[19] improvements in government balance in 2015 by 10 to 20 bln euro, i.e. by 1.5% GDP to 3% GDP. Improvement in sustainability of public finance takes also account of measures which take a longer time to influence the government balance (e.g. a very moderate but prolonged reduction of the tax expenditure on housing) and the ex post effects. These proposals ranged from 17 bln euro to 39 bln euro, i.e. nearly 6% GDP.

Since September 2010, there is a new Dutch government. Their coalition agreement amounts to an ex ante improvement of the government balance by 15 bln euro, i.e. 2.5% GDP. In terms of sustainability of public finance, the impact of the policy measures is 20 bln euro, i.e. 3% GDP (see CPB, 2010d and CPB, 2010e).

This chapter provides an overview of Dutch fiscal policy in view of the financial crisis and ageing. Section 3.2 presents some key-statistics and estimates on Dutch public finance for 1970-2011. These statistics reveal four quite different periods, show the role of the rising costs of age-related government expenditure (e.g. health care), the exhaustion of natural gas resources and the short-term impact of the financial crisis on Dutch public finance. Section 3.3 provides a brief historical overview of Dutch fiscal policy since 1980[20], i.e. the period in which reducing government deficit and debt became the central issue in Dutch fiscal policy. Section 3.4 looks at the consequences of the financial crisis for Dutch medium-term economic growth. Section 3.5 investigates the sustainability of Dutch public finance in view of these new prospects.

[19] Ex ante, so excluding secondary effects. For example, most budgetary cuts also reduce in the short and medium term expenditure by domestic households and firms and reduces therefore tax revenue and increase expenditure, like unemployment benefits.

[20] A more long term and detailed overview of the history of Dutch fiscal policy can be found in Bos (2008).

3.2 Key-statistics on Dutch public finance 1970-2011

Following the key-statistics (see below), four periods can be distinguished in Dutch public finance during 1970-2011[21]:

- 1970-1982: A period with a rapidly rising size of government expenditure as percentage of GDP (44% GDP to 60% GDP), with rapidly rising government revenue (taxes and social security contributions, but also natural gas revenues), low government deficits and rather stable levels of government debt and net worth.
- 1983-1992: A period with a small reduction in the size of government expenditure, with government deficits generally more than 4% GDP and with a rapidly increasing government debt and an even more rapidly decreasing net worth of the government.
- 1993-2007: A period with substantial reduction in the size of government expenditure and taxes and social security contributions (reflecting a larger private responsibility for welfare-arrangements[22] and social benefits increasing much less than wage rates), with government deficits generally smaller than 3% GDP (and even some occasional government surpluses), with substantially decreasing government debt, but with rather stable net worth. The latter reflected the decline in natural gas resources and the sale of financial assets due to privatisation and deregulation. In 1995 the government expenditure and the government deficit were incidentally large, as the annual subsidies to housing corporations were bought off by a transfer of 4.9% GDP.
- 2008- present: Due to the financial crisis, government deficit rapidly deteriorated and government debt started to increase due to these deficits and the interventions in the financial sector. Also net worth of the government is declining rapidly, from 60% GDP in 2008 to 44% GDP in 2011. The new Dutch government that started in September 2010 agreed to reduce the government deficit and to improve the sustainability of Dutch public finance (see section 3.1).

[21] For more details, see Bos (2003a), Bos (2008) and Bos (2010).

[22] For example, the payment of wages during sickness became the responsibility of employers. A major exception is the health care reform of 2006: in order to stimulate the market mechanism in Dutch health care, a right wing government introduced a uniform health care package for all citizens financed via competing private insurers. This increased government expenditure and social security contributions by 1.6% GDP.

Figure 3.1 Government budget balance as % GDP and economic growth (1970-2011)

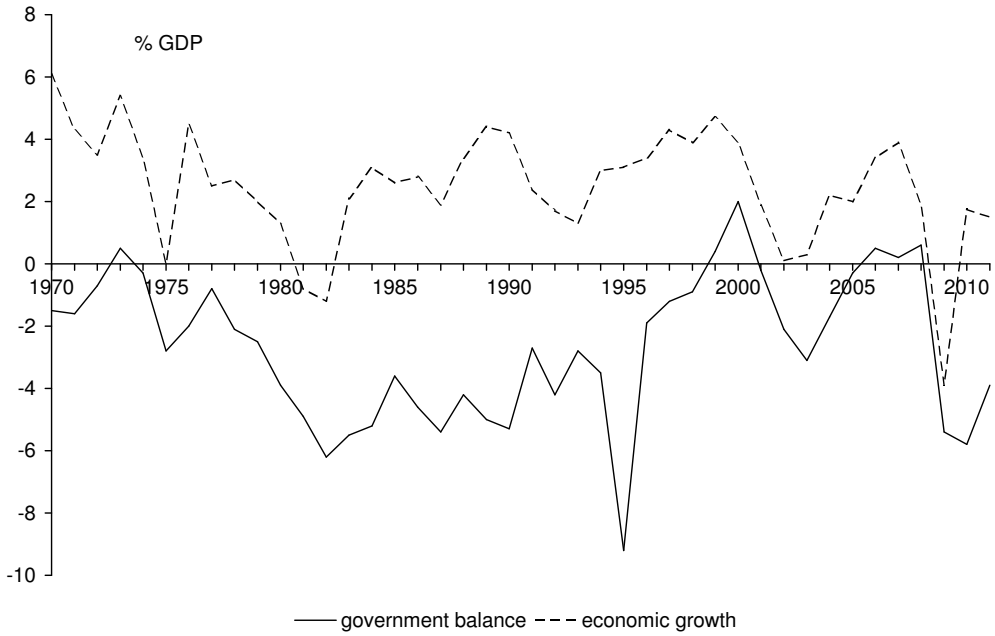


Figure 3.2 Dutch government expenditure and revenue as % GDP (1970-2011)

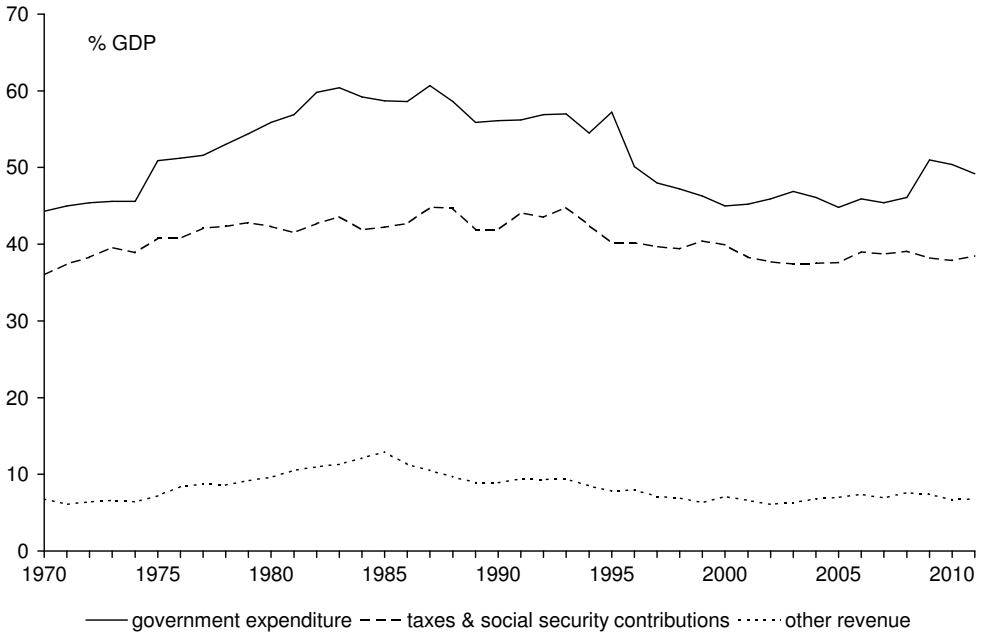


Table 3.1 Size and composition of Dutch government expenditure (1970-2011, % GDP)

	1970	1983	1993	2011
Public administration	9.5	10.9	11.3	11.0
Safety	1.1	1.3	1.2	1.9
Defence	2.7	2.9	2.1	1.2
Infrastructure	2.6	1.5	1.5	1.8
Education	6.3	6.3	5.5	5.4
Care (collectively financed)	2.8	4.8	6.2	9.7
Long term care	0.8	2.0	3.7	3.7
Public health insurance	1.9	2.8	2.5	5.5
Other	0.0	0.0	0.0	0.5
Social security	11.4	20.0	17.0	12.3
Old age pensions	4.7	6.0	6.2	5.0
Unemployment insurance and welfare	1.1	3.4	3.1	2.0
Disablement benefits	2.8	5.1	5.0	1.7
Other	2.9	5.5	2.7	3.5
Transfers to corporations	3.1	5.2	3.6	1.7
International cooperation	1.9	1.9	2.5	2.2
Interest	2.9	5.6	6.1	2.3
Total government expenditure	44.3	60.4	57.0	49.2

Figure 3.3 Government assets as % GDP (1970-2011)

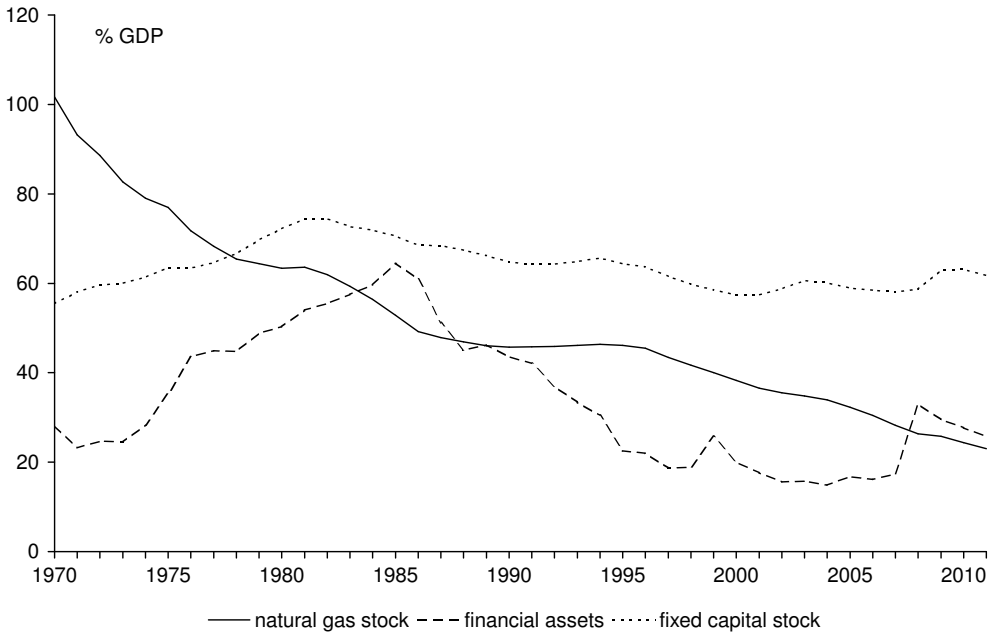


Figure 3.4 Net worth of the government and government debt as % GDP (1970-2011)

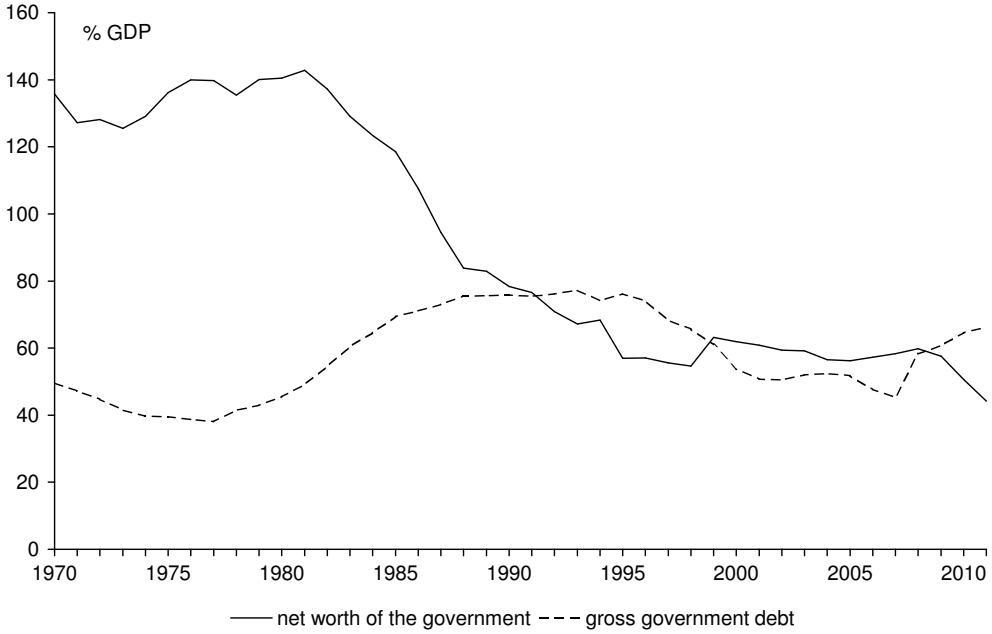
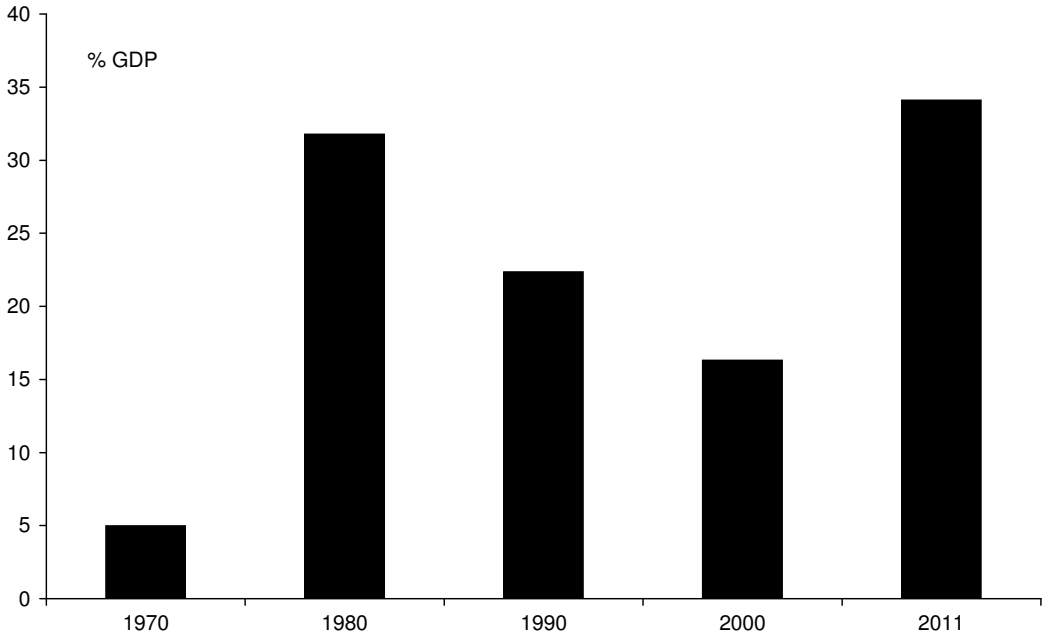


Figure 3.5 Explicit guarantees by the central government as % GDP (excluding guarantees not explicitly shown in the national budget, e.g. bank deposits supervised by the Dutch central bank are guaranteed up to 100 thousand euro; its value was more than 50% GDP in 2008)



3.3 Dutch fiscal policy since 1980

Table 3.2	Fiscal policy in the Netherlands since 1980: Norms for reducing deficit and debt
1980-1982	A maximum actual deficit
1983-1994	A time path approach for reducing the actual deficit
1993-	European norms for actual deficit and debt
1994-	Trend based budgeting with expenditure ceilings and a focus on reducing government debt, has since 2000 embedded in a forward looking view on public finance. Incentives and cost-benefit analysis become major official tools for controlling and managing public expenditure

1980-1982 A maximum actual deficit

In the period 1979-1982, the budget deficit increased rapidly from 2% to 6% GDP; this excluded the extension of loans to corporations. In 1978, following CPB-estimates of medium-term economic growth, the multi-annual growth estimates used by the new cabinet were lowered from 3.75 % to 3%. This was nevertheless far too optimistic: partly due to the second oil crisis, the average growth in 1979-1982 turned out to be –¼ %. The many downward adjustments in subsequent CPB's economic growth estimates were only included in the budget for the current and forthcoming year. The macro-economic assumptions for later years were hardly adjusted. The huge budget deficit and stagnated economic growth implied also a rapid increase in government debt: from 41% GDP at the end of 1978 to 61% GDP at the end of 1983. This was accompanied by high long-term interest rates, e.g. 9% in 1978, 11.5% in 1981 and 10% in 1982.

This period should be regarded as a period of transition. The structural budget policy was left, but the need for a much tighter fiscal policy was not yet accepted. For example, in 1980, Minister of Finance Andriessen proposed additional budget cuts of 2 billion euro. However, the other ministers did not agree. They only wanted to accept a budget cut of 1 billion euro and Minister of Finance Andriessen resigned.

1983-1993 A time path approach for reducing the actual deficit

In 1983, reducing the deficit via a time path approach became the new fiscal norm: regardless of the cyclical development, the actual deficit should be reduced with 1% GDP per year, while the burden of taxes and social security contributions were to remain stable and at a minimum.

A detailed coalition agreement was set up in order to realize substantial budget cuts, e.g. a reduction of the salaries of civil servants and the rates of social benefits. Set backs, both from the expenditures and income side of the budget (taxes, social security contributions and natural gas revenues) required frequent new cut-backs, which made the budget process very turbulent. Ten years later, in 1993, public expenditure as a percentage of GDP was reduced with 3% GDP, while the collective tax burden had slightly increased. Following the national definition of deficit, a substantial reduction had been achieved. In terms of the general government budget

balance, which excludes financial transactions like loans, there was also a reduction of the deficit, but somewhat smaller: from 5% GDP in 1983 to 3% GDP in 1993; this was just sufficient to meet the EMU-limit. However, public debt had continued to rise from 60% GDP in 1983 to 77% GDP in 1993.

1994-present Trend-based budgeting

The reduction of the government deficit enabled Minister of Finance Zalm to supplement the European norms with a national policy of trend based budgeting. Since 1994, the major features of this policy are:

- Net real expenditure ceilings for the whole term of government (four years);
- One main decision-making moment a year;
- A focus on reducing public debt.

Furthermore, there are also some supplementary fiscal rules and principles:

- A monitor for the ex ante micro tax and social security burden. This monitor shows the expected changes in taxes and social security contributions in billion euros due to official changes in tariffs and regulations. Unlike the collective tax and social security burden, the monitor is not affected by non-policy factors, e.g. purely administrative changes, general changes in consumption patterns or changes in the labour participation of women.
- An investment fund mainly financed via 40% of the natural gas revenues (FES-fund); the remainder of the natural gas revenues are to be used for debt reduction[23].
- A signal value for the general government deficit of 2 or 2.5% GDP. Surpassing this signal value implies that additional measures are to be taken and that the expenditure ceilings do not apply anymore. This may result in pro-cyclical policy.
- The use of incentives and cost-benefit analysis for reorganizing and controlling public expenditure.

The long-term real expenditure ceiling limits the risk of budgetary turmoil resulting from economic setbacks. On the income side of the budget automatic stabilizers are allowed to work freely.[24] Income setbacks can be compensated for in the budget balance and do not immediately require intervention by reducing expenditure or increasing taxes. The introduction of one main decision-making moment a year was intended to create a more stable and less hectic budgetary decision-making process, as was the case in the time path approach.

[23] This fund was abolished in 2010 by the new government Rutte.

[24] During the period 1998-2002, also a windfall formula for tax and social security contributions was applied. In case of an general government deficit of less than 0.75% GDP, 50% of the windfall was to be used for deficit reduction and 50% for additional tax relief. If the general government deficit is more than 0.75% GDP, then 75% of the windfall was to be used for deficit reduction and 25% for additional tax relief.

The framework is set with reference to a target for the fiscal balance based on longer-term budgetary sustainability considerations (see also section 2.2). CPB analyses of short-term, medium-term and long-term developments in Dutch public finance are the backbones of this framework.

Due to the financial crisis, government deficit deteriorated rapidly and surpassed the signal value of 2% GDP. Following the official fiscal principles, additional measures in terms of huge budget cuts or extra taxes were to be taken in order to bring the deficit below the signal value. However, in line with recommendations by CPB, no such additional measures were taken. To alleviate the consequences of the financial crisis, a very limited amount of stimulating policy measures were taken, like temporary part-time unemployment benefits, extra expenditure for infrastructure and some extra fiscal allowances for business. The expenditure ceiling was maintained, but it was corrected for the rise in unemployment benefits. Furthermore, the interventions in the financial sector and the stimulating policy measures were regarded as irrelevant for the expenditure ceiling. All these ad hoc deviations from the official fiscal principles were judged favourably by CPB.

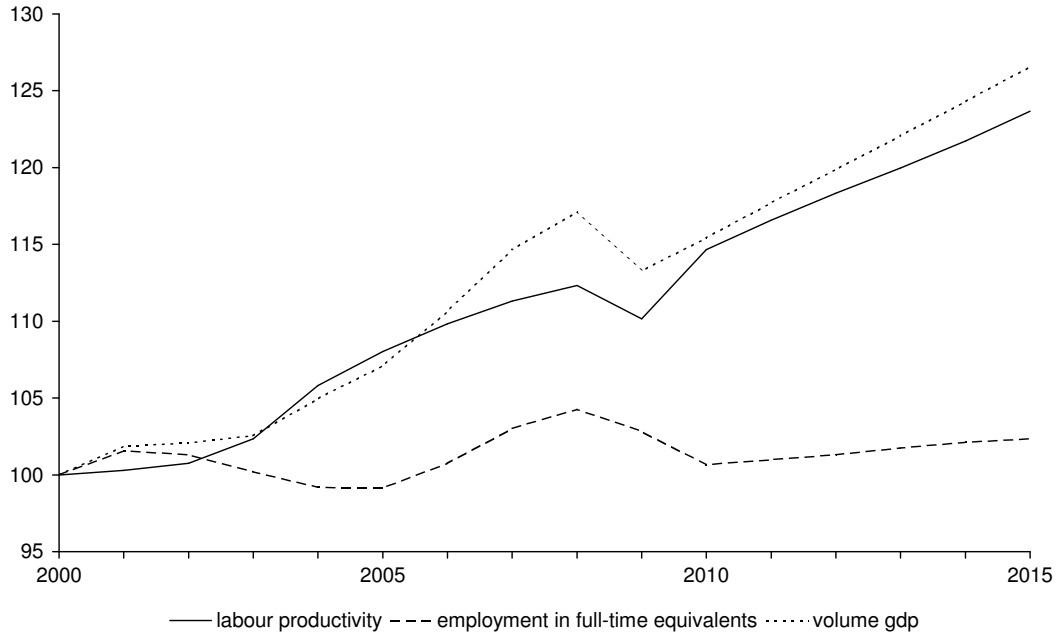
3.4 The financial crisis and Dutch economic growth[25]

An event like the financial crisis can influence economic growth in various ways. With some delay unemployment will rise and can stay long-lasting at a higher level than before the crisis. For a long time, risk premiums at the financial markets will also be much higher than before, which makes loans for corporations much more expensive. There may also be consequences for technological progress, but theory does not clearly indicate whether the net effect will be positive or negative.

Recently, various studies have investigated the impact of previous financial crises. Cerra and Saxena (2008) and Teulings and Zubanov (2009) show that during and immediately after a financial crisis Gross Domestic Product shrinks with about 8% in comparison with the trend before the crisis and that a return to the old trend is hardly ever realised: measured from the trough of the crisis, the volume growth rate of GDP is generally nearly the same as before the crisis.

[25] This section is a translation of text in CPB (2010b, section 2.1).

Figure 3.6 Dutch economic growth, labour productivity and employment (2000-2015, 2000 = 100)



IMF (2009) has a rather similar conclusion: seven years after the financial crisis GDP is about 10% lower than expected by the old trend. The IMF stresses the variability of the results for individual countries. For about a quarter of the countries GDP is even higher than the old trend, while for another quarter GDP drops by more than 25%. According to the IMF, the latter occurs in particular for countries with a high rate of investment before the crisis and for countries with a major loss of output in the first year of the financial crisis.
OECD (2009) expects that the level of potential output decreased with 2% due to a lower capital-intensity. In addition, for Europe an extra decrease with 1% is caused by a higher equilibrium level of unemployment. The European Commission (2009) sketches a pessimistic/realistic scenario with a 4% reduction of potential output of Europe. These estimates are lower than the average from Cerra and Saxena (2008). The recent recession due the financial crisis is in most countries also lower than average. For example, Reinhart and Rogoff (2008) calculated that for 15 major financial crises GDP per capita was 9% lower after two years.

What do these analyses imply for the consequences of the financial crisis for Dutch economic growth? Figure 3.5 shows GDP volume growth since 2000. After 2008, Dutch GDP dropped substantially and increases with approximately the same growth rate as before. This pattern fits to that of a financial crisis and is comparable to e.g. the experience in Finland in 1991. The figures also shows the decomposition of GDP volume growth into labour productivity and employment (full-time equivalents). Labour productivity shows a big drop in 2009, but recovers rapidly. Unemployment is in 2015 expected to be still higher than in 2008. However, the increase in unemployment is much smaller than in other countries and also much smaller than the average of previous financial crises in other countries.

The expected relatively small negative consequences of the financial crisis in the Netherlands is in line with the analysis by the IMF (2009). The investment rate was 20.8% GDP in 2008 and well below the EU-average. Furthermore, the loss of production at the start of the crisis was very small, in particular in comparison to other crises in other countries. The Netherlands had also a favourable record for two other factors generally deemed relevant for the size of permanent losses. Dutch public finance was rather healthy with a low level of debt and low government deficits. Furthermore, the current external account consistently shows an export surplus.

3.5 Sustainability of Dutch public finance[26]

The most important reason why ageing jeopardises the sustainability of public finances is that many social security institutions are financed on a PAYG basis. This applies not only to the majority of pension schemes in industrialised countries, but also to health insurance schemes. Although this financing mode is a good thing when it comes to organising solidarity between different generations, it is vulnerable to a significant increase in the number of retirees relative to the number of workers. And this is exactly what occurs with an ageing population.

This problem does not apply only to the Netherlands. All industrialised countries face the same challenge (although to a different extent), since the factors behind the ageing of the population, low fertility rates and an ongoing increase in life expectancies, are international. The PAYG financing mode is international as well, although in this respect, too, there are important differences between countries. Indeed, the relatively modest demographic change expected for the Netherlands and the sizeable amount of pensions that are funded imply that fiscal sustainability is less problematic in the Netherlands than it is in some other EU countries.

The combination of low fertility, ongoing growth in life expectancy and the retirement of the baby-boom generations will lead to a doubling of the ratio of retirees to people of working age. The ageing of the population drives up the expenditure on first-pillar pensions and on health care (both cure and long-term care services) and reduces the base from which this expenditure needs to be financed (the income generated by labour market participation). This is not the whole story, however. Indeed, not only does public expenditure increase relative to GDP, also the ratio of tax- and social security revenues to GDP increases over time. This reflects, first, that national consumption grows relative to national output, and that consumption is a major part of the base for indirect taxation. Second, it relates to the consumption principle that is used in the Netherlands to tax second-pillar pensions: tax pension benefits, but not pension premiums. The ageing of the population, reflected in a steep increase

[26] This section draws heavily on van Ewijk et al. (2006) and the update in CPB (2010b).

of pension benefits, thus also boosts the revenues from income taxation The increase of revenues from taxes and social security contributions cancels against the increase of expenditure on public pensions; both amount 3%-points of GDP in the 2011-2040 period. Health care expenditure increases also with about 4%-points of GDP, however. Hence, given that current budgetary policies are left unchanged, primary deficits will arise, increasing debt and deficit levels to higher and higher levels. In other words, solvency of the public sector is a real problem under current budgetary policies.

Table 3.2 Dutch government expenditure and revenue, 2011-2060, % GDP (assuming no policy changes; figures excluding the new coalition agreement by the government Rutte)

	2011	2015	2020	2040	2060
Expenditure					
Social security	12.6	12.3	12¾	15¼	14¾
- AOW (old age pensions)	4.9	5.4	6	8½	8
- disability benefits	1.8	1.6	1½	1½	1½
- unemployment benefits	1.4	1.0	1	1	1
- other	4.4	4.4	4¼	4¼	4½
Care (collectively financed)	9.8	10.3	10¾	14¼	14¼
Education	5.5	5.3	5¼	5½	5¼
Other expenditure (excl. interest)	19.9	18.4	18¼	18	18
Interest payments	2.6	3.1	3	4½	7½
Total	50.3	49.4	50	57¾	60
Revenue					
Income tax and social security contributions	22.3	23.0	23¼	24¾	24¾
- of which linked to pension income	1.9	1.9	2	2¾	2¾
Taxes on production and imports	13.2	13.3	13¾	15½	15¼
- of which linked to consumption by 65+	2.1	2.3	2¾	4¼	4
Corporation tax (excl. natural gas part)	2.7	3.1	3½	3¼	3½
Revenues from natural gas	1.7	1.6	1½	0	0
Other revenue	5.7	5.4	5¼	5	5
Total	45.6	46.4	47¼	48½	48¼
EMU-government balance	– 4.7	– 3.1	– 2¾	– 9	– 11¼
Robust government balance	– 5	– 2¾	– 2½	– 5¾	– 4¾
EMU-government debt	69.0	73.8	75	132	217

In 2007, at the start of a new period of government and before the financial crisis, the sustainability gap was estimated to be about 2% GDP. This sustainability gap does not only reflect the net cost of ageing but also the exhaustion of natural gas reserves in about 2025. Directly after the fall of the government Balkenende IV, CPB estimates (CPB, 2010b) indicated that the sustainability gap has increased to 4½% GDP in 2015. About half of this deterioration reflects the deterioration of Dutch public finance in 2011, mainly due to the financial crisis. The other major reason for this deterioration was the new demographic projection by Statistics

Netherlands. The latter indicates a 1.5 years higher life expectancy than previously assumed (partly compensated by the assumption that half of this increase in life expectance is an increase in good health).

A sustainability gap of 4½% GDP in 2015 corresponds to 2000 euro per inhabitant. Without policy changes average increase in purchasing power is expected to be small during the next period of government: ¼% per year. Policy aimed to reducing the sustainability gap will probably affect the purchasing power negatively. The long trend in Dutch expenditure on (health) care is a real growth rate of about 4% per year. A major assumption underlying the new medium- and long term forecasts is that government expenditure on (health) care only increase with 3% per year, i.e. equal to GDP-growth plus the direct effects of ageing; the remainder of the increase is to be financed privately. New policy measures may change the role of the collectively financed part, but may also try to mitigate the general increase in (health) care expenditure.

In September 2010, the new government Rutte started. According to CPB calculations (CPB, 2010d and CPB, 2010e), the new coalition agreement implies that the sustainability gap is reduced by 3% GDP, leaving a sustainability gap to be solved by future generations of about 1% GDP.

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