



OECD Economics Department Working Papers No. 1010

Health Care Reform
and Long-Term Care
in the Netherlands

Erik Schut,
Stéphane Sorbe,
Jens Høj

<https://dx.doi.org/10.1787/5k4dlw04vx0n-en>

Unclassified

ECO/WKP(2013)2

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

11-Jan-2013

English - Or. English

ECONOMICS DEPARTMENT

ECO/WKP(2013)2
Unclassified

HEALTH CARE REFORM AND LONG-TERM CARE IN THE NETHERLANDS

ECONOMICS DEPARTMENT WORKING PAPER No. 1010

By Erik Schut, Stéphane Sorbe and Jens Høj

All OECD Economics Department Working Papers are available through OECD's Internet website at <http://www.oecd.org/Workingpapers>

JT0333242

Complete document available on OLIS in its original format

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

English - Or. English

ABSTRACT / RESUMÉ**Health care reform and long-term care in the Netherlands**

The Netherlands, as other OECD countries, faces the challenge of providing high quality health and long-term care services to an ageing population in a cost-efficient manner. In the health care sector, reforms have aimed at introducing more competition. Despite major changes and some positive effects, the reforms run the risk of getting stuck in the middle between a centralised system of state-controlled supply and prices and a decentralised system based on regulated competition, providing insufficient incentives for provision of quality services and expenditure control. The main challenges are to complete the transition to regulated competition in health care provision, to strengthen the role of health insurers as purchasing agents and to secure cost containment in an increasingly demand-driven health care sector. In 2012, reforms expanded the role of the market in the hospital sector and reinforced budget controls. Both measures are not consistent and may jeopardize both objectives. More competitive markets require, at least, provision of good quality information, appropriate financing and better efficiency incentives. In view of population ageing, current policies mean that the cost of long-term care is set to more than double over the coming decades. Insufficient incentives for cost-efficient purchasing of long-term care should be addressed. However, the government's plan to transfer long-term care purchasing to health insurers is unpromising unless additional measures ensure that insurers bear the associated financial risks. In addition, home care should be further encouraged at the expense of institutional care, while screening and targeting should be improved. This Working Paper relates to the 2012 OECD Economic Survey of the Netherlands (www.oecd.org/eco/surveys/Netherlands).

JEL classification codes: H51, I11, I13, I18

Keywords: healthcare reform; health insurance; regulated competition; hospitals; long-term care; the Netherlands

Réforme des soins de santé et soins de longue durée aux Pays-Bas

Les Pays-Bas, comme les autres pays de l'OCDE, sont confrontés à la difficulté de fournir, au meilleur coût, des services de santé et des soins de longue durée de haute qualité à une population vieillissante. Dans le secteur de la santé, des réformes ont déjà été mises en œuvre en vue d'intensifier la concurrence. Malgré des changements majeurs et certains effets positifs, les réformes risquent de s'enliser, prises en étau entre un système centralisé d'offre et de prix contrôlés par l'État et un système décentralisé fondé sur une concurrence réglementée, n'incitant pas suffisamment à fournir des services de qualité et à maîtriser les dépenses. Les principales difficultés consistent à mener à bien la transition vers un régime de concurrence réglementée dans la prestation de soins de santé, à renforcer le rôle des assureurs en tant qu'agents acheteurs et à assurer la maîtrise des coûts dans un secteur de la santé qui obéit de plus en plus à la demande. En 2012, les réformes ont accru le rôle du marché dans le secteur hospitalier et renforcé les contrôles budgétaires. Ces deux mesures ne sont pas compatibles et risquent de compromettre la réalisation des deux objectifs. Des marchés plus concurrentiels requièrent, au minimum, une information de bonne qualité, un financement approprié et des incitations plus fortes à l'efficacité. Compte tenu du vieillissement de la population, les politiques actuelles feront plus que doubler le coût des soins de longue durée au cours des décennies à venir. Il faudrait inciter davantage à l'achat de soins de longue durée efficaces par rapport à leur coût. Cependant, le plan du gouvernement consistant à transférer l'achat de soins de longue durée aux assureurs est voué à l'échec en l'absence de mesures supplémentaires faisant supporter à ces derniers les risques financiers correspondants. Il faudrait en outre encourager les soins à domicile aux dépens des soins en établissement, tout en améliorant le filtrage et la fixation d'objectifs. Ce document de travail se rapporte à l'Étude économique des Pays-Bas de 2012 (www.oecd.org/eco/etudes/Pays-Bas).

Classification JEL : H51, I11, I13, I18

Mots clefs : réformes du système de santé ; assurance santé ; concurrence réglementée ; hôpitaux ; soins de longue durée ; Pays-Bas

© OECD (2013)

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for commercial use and translation rights should be submitted to rights@oecd.org.

TABLE OF CONTENTS

Health care reform and long-term care in the Netherlands.....	5
Performance of the health care system	5
Health outcomes are relatively good	5
Considerable resources are devoted to the health system	9
The health care sector was substantially reformed in the second half of the 2000s	13
Reforms have had a mixed effect on cost-efficiency in the hospital sector	14
The remuneration of doctors has increased.....	17
The reforms have lowered drug costs.....	20
The next wave of reform.....	21
Population ageing will put pressure on a costly long-term care system	23
Further decentralisation of home care has the potential to enhance efficiency	25
Health insurers should not be given a bigger role without adequate financial incentives.....	27
The cash benefits boom has exposed targeting problems	28
Conclusion	29
Bibliography	31

Boxes

1. Mental health care reform - a step too far?	15
2. Will the organisation of GPs into primary care groups improve cost-efficiency?.....	19
3. Main reform measures in the hospital sector 2012-15	21
4. A comprehensive public long-term care system	24
5. The decentralisation of home help has improved cost-efficiency.....	25
6. The government's reform agenda for long-term care.....	25
7. Recommendations to promote a more efficient and competitive health sector	30

Tables

1. Mortality rates of infants and mortality by leading causes	7
2. Out of pocket and voluntary private health insurance as a share of total health expenditure	9
3. Public expenditures for health care and long-term care	10
4. Public health care expenditure (ZVW) by category.....	11
5. Profitability of health insurance	13
6. Concentration of the health insurance market.....	14
7. Expenditures on curative mental care covered by ZVW.....	15
8. Changes in negotiated average prices in the hospital segment B.....	16
9. Remuneration, as ratio to average wage in each country	17
10. General practitioners and specialists per 1 000 population.....	18

Figures

1. Life expectancy indicators	6
2. Health risks	8

3.	The Netherlands has relatively high health expenditures.....	10
4.	Health care consultations and hospital resource use	11
5.	Health care resources	12
6.	Expenditure on outpatient prescription drugs	20
7.	Main features of the envisaged reorganisation of the long-term care system	26

Health care reform and long-term care in the Netherlands

By Erik Schut, Stéphane Sorbe and Jens Høj¹

Performance of the health care system

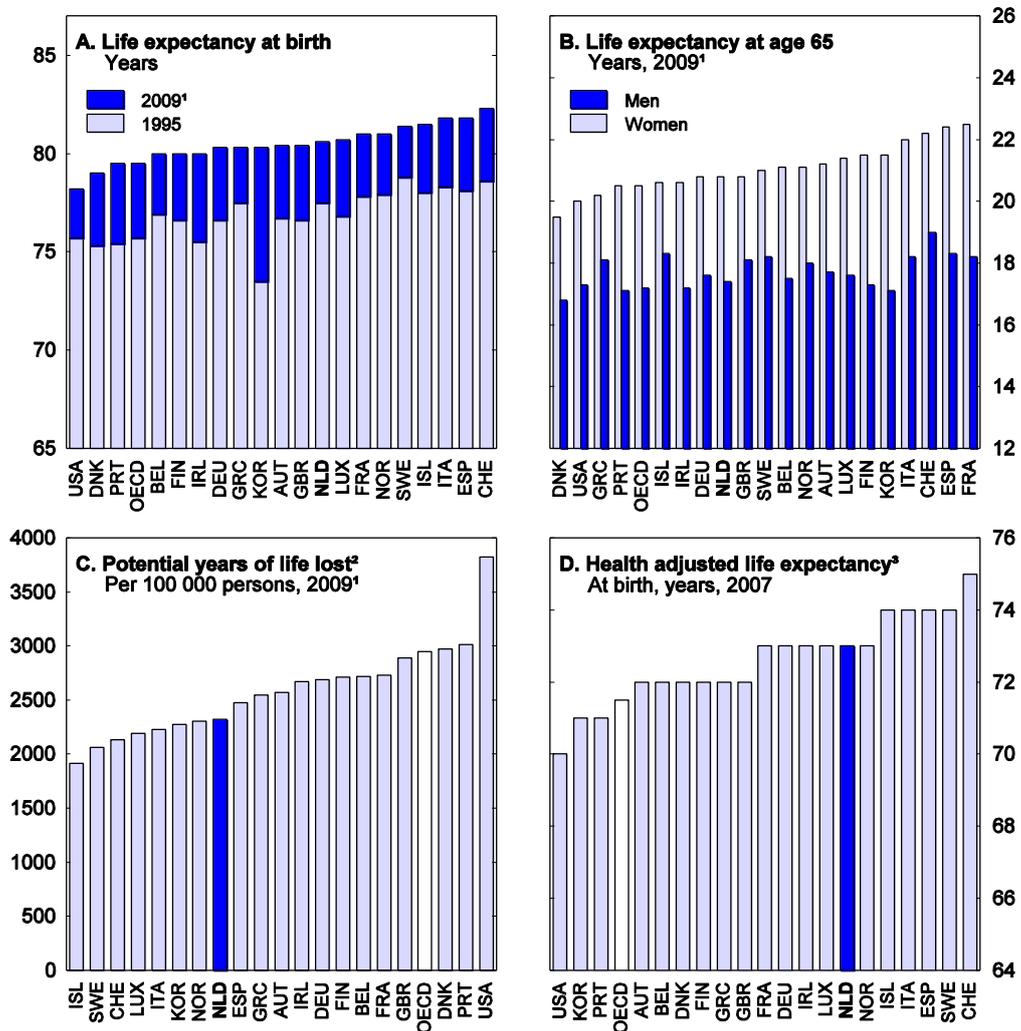
The health care sector is effective, as illustrated by relatively low avoidable mortality, but costly. Costs are comparable to other countries with institutionally similar health care systems (market mechanisms in regulating both insurance coverage and health care provision) such as Germany and Switzerland, but relatively high in comparison to most other OECD countries with different systems (Joumard *et al.*, 2010). More specifically, hospital care exhibits mixed efficiency scores, while quality is high in preventive and outpatient care (findings that predate the effects of recent health care reforms). Other studies have emphasized the high equity and access in the Dutch health care system (Davis *et al.*, 2010). This paper starts with an assessment of health outcomes and resource use. Then the effects of mid-2000s reforms are analysed and the next wave of reforms is discussed. Finally, the paper assesses reforms of the (distinct) long-term care system.

Health outcomes are relatively good

Health outcome indicators for the Netherlands range from about average to relatively good. Life expectancy at birth is similar to most other Western European countries, but remaining years at retirement are only just above the OECD average (Figure 1). Life expectancy has progressed more slowly than in most other OECD countries over 1995-2005 (Joumard *et al.*, 2010) before rising quite sharply in the second half of the 2000s, largely thanks to a declining mortality among the elderly (Mackenbach *et al.*, 2011). Moreover, the expected number of years of life in good health is fairly high and Dutch citizens seldom succumb to accidental death, implying relatively few potential years of life lost. This average to good performance is also reflected in infant mortality, which is well below the OECD average, but still twice the lowest in the OECD. Similarly, mortality by leading non-communicable causes is generally relatively low except for cancer (Table 1). Finally, inequalities in health outcomes are low and lifestyles relatively health despite a high smoking habit (Figure 2) (Joumard *et al.*, 2010).

1. Erik Schut is professor of health economics at Erasmus University in Rotterdam (the Netherlands), Stéphane Sorbe and Jens Høj are respectively economist and senior economist in the OECD Economics Department. This paper originally appeared as Chapter 3 in the OECD Economic Survey of the Netherlands 2012, published in June 2012 under the authority of the Economic and Development Review Committee. The authors are grateful to Pierre Beynet, Andrew Dean, Robert Ford and Mark Pearson for valuable comments and suggestions on earlier drafts as well as for discussions with Dutch government officials and independent experts. Special thanks go to Sylvie Foucher-Hantala for statistical assistance and to Maartje Michelson and Sylvie Ricordeau for editorial assistance.

Figure 1. Life expectancy indicators



1. Or latest year of data available (2005-09); see source database for detail of country coverage.
2. Adjusted series calculated excluding deaths from land transport accidents, accidental falls, suicides and assaults. Age group 0 to 69.
3. Number of years expected to be lived in what might be termed the equivalent of "full health".

Source: OECD (2011), "OECD Health Data: Health Status", OECD Health Statistics (database), December and WHO (2011), Global Health Observatory Data Repository, World Health Organisation, May.

Table 1. Mortality rates of infants and mortality by leading causes2009 or latest year available¹

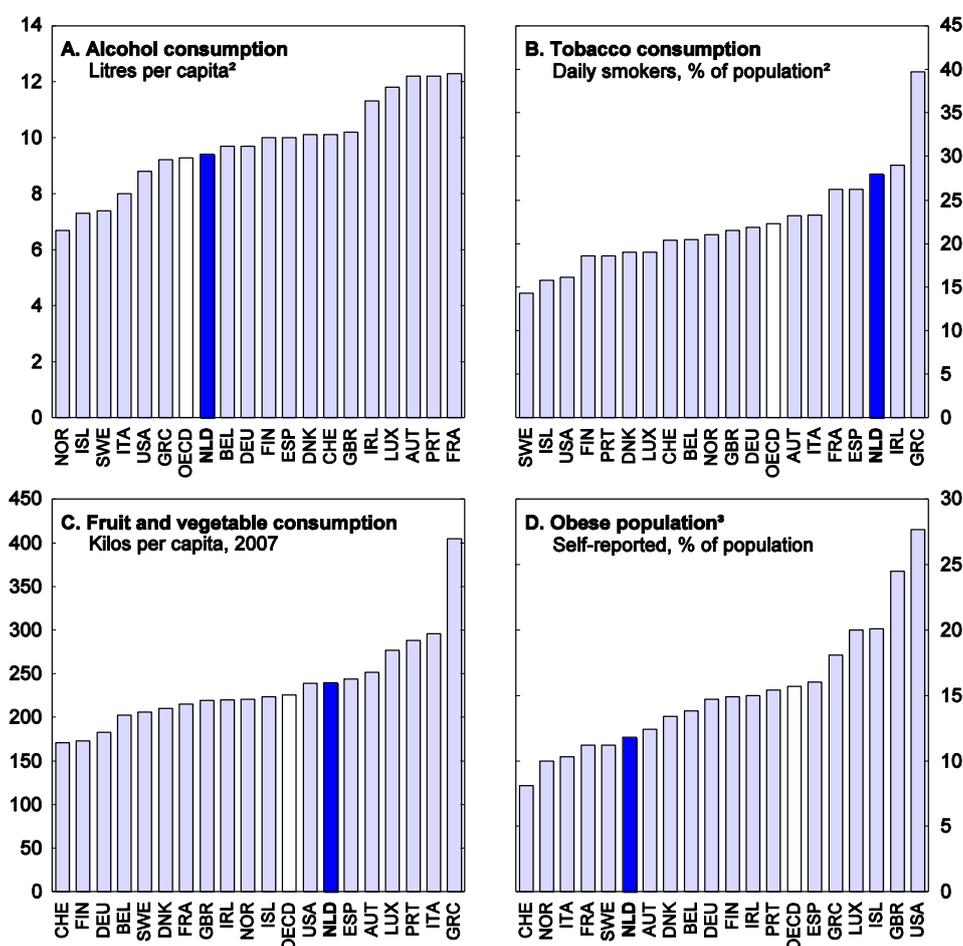
	Infant mortality (deaths per 1 000 live births)	Leading causes of mortality (deaths per 100 000 population)				
		Ischemic heart disease	Cerebrovascular disease (stroke)	Lung cancer	Other types of cancer	Liver diseases and cirrhosis
Australia	4.3	74	35	29	116	5
Austria	3.8	92	32	29	121	14
Belgium	3.4	64	41	42	123	9
Canada	5.1	--	--	--	--	--
Czech Rep.	2.9	161	75	37	150	15
Denmark	3.1	68	50	50	149	13
Finland	2.6	115	43	24	105	17
France	3.9	32	26	33	125	9
Germany	3.5	93	40	32	125	13
Ireland	3.2	98	39	38	138	7
Italy	3.7	58	44	33	124	9
Japan	2.4	26	40	26	108	6
Korea	3.5	28	57	32	111	11
Mexico	14.7	85	43	10	81	35
Netherlands	3.8	42	33	44	134	4
New Zealand	4.7	98	43	31	136	3
Norway	3.1	62	36	32	118	3
Poland	5.6	97	73	47	146	15
Portugal	3.6	40	71	22	125	12
Slovenia	2.4	61	63	35	154	22
Spain	3.3	45	36	32	115	9
Sweden	2.5	85	40	25	116	5
Switzerland	4.3	62	27	28	111	..
United Kingdom	4.6	77	41	38	127	11
United States	6.5	95	31	45	108	10
OECD average ²	4.4	85	48	33	126	12

1. The latest year varies from 2007 to 2009 for infant mortality and from 2005 to 2009 for causes of mortality.
2. Unweighted average of latest year of data available. See source database for detail of country coverage.

Source: OECD (2011), "OECD Health Data: Health Status", *OECD Health Statistics* (database), July.

Figure 2. Health risks

2009 or latest year available ¹



1. The latest year varies from 2005 to 2010; see source database for detail of country coverage. The OECD aggregate is an unweighted average of data available.
2. Population aged 15 and over.
3. Luxembourg, Slovak Republic and United Kingdom figures are based on health examination surveys, rather than health interview surveys.

Source: OECD (2011), "OECD Health Data: Non-Medical Determinants of Health", OECD Health Statistics (database), December and OECD (2010), OECD Health at a Glance: Europe 2010.

Systematic monitoring of the health care system has been in place since 2006, using 125 indicators to describe quality, accessibility and costs (Westert *et al.*, 2010). Quality indicators show a relatively high uptake of preventive screening and low rates of avoidable hospital admissions, pointing to effective primary and outpatient clinical care. The hospital sector appears less effective, with the death rate within 30 days of hospital admission for an acute condition (heart attack, brain haemorrhage, stroke) being about twice as high as the lowest rates in Europe (Westert *et al.*, 2010). Access to care is facilitated by the comprehensiveness of the basic mandatory health insurance scheme and by the lowest copayments in Europe (Table 2), securing that only few people forgo medical visits for financial reasons (Westert *et al.*, 2010). In addition, essential care services are available at short distance to almost the entire population, while waiting times for almost all treatments are below the agreed acceptable standard (known as ‘Treek norms’) (NZa, 2012). Likewise, health inequalities measured by the dispersion in the age of death are among the lowest in the OECD (Joumard *et al.*, 2010). As in many other countries, there is evidence of substantial practice variation (or small-area variation) which cannot be explained by socio-economic

factors (Van Beek *et al.*, 2009), pointing to room for efficiency improvements. This is particularly the case for common surgical operations, prescription behavior and a number of diseases, such as otitis media (middle ear infection), pneumonia, and hernia (Vektis and Plexus, 2011).

Table 2. Private spending as a share of total health expenditure

2008

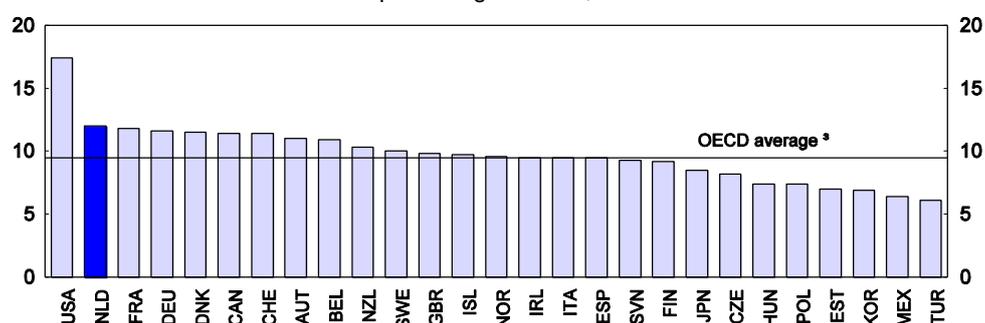
	Out-of-pocket (copayments)	Voluntary private health insurance	Other private	Total private spending
Austria ¹ (2008)	15.5	4.7	1.1	21.4
Belgium ¹	20.0	4.8	0.2	24.9
Czech Republic	14.4	0.2	1.4	16.0
Denmark ¹	13.7	1.8	0.1	15.5
Estonia	20.3	0.2	0.3	20.8
Finland	19.0	2.1	4.1	25.3
France	7.3	13.3	1.5	22.1
Germany	13.1	9.3	0.7	23.1
Hungary	23.7	2.7	3.9	30.3
Iceland	16.6	...	1.4	18.0
Ireland	12.3	11.0	1.7	25.0
Italy	19.7	1.0	1.5	22.1
Luxembourg	11.6	3.1	1.2	16.0
Netherlands¹	6.2	5.5	3.7	15.3
Norway	15.1	...	0.8	15.9
Poland	22.2	0.6	4.8	27.6
Portugal (2008)	27.2	4.9	2.9	34.9
Slovak Republic	25.6	0.0	8.8	34.3
Slovenia	12.9	12.5	1.2	26.6
Spain	20.1	5.4	0.9	26.4
Sweden	16.7	0.2	1.6	18.5
Switzerland	30.5	8.8	1.0	40.3
Turkey ¹ (2008)	19.2	...	8.1	27.3
United Kingdom	10.5	1.1	4.3	15.9

1. Current expenditure.

Source: OECD (2011), OECD Health Statistics (database), March.

Considerable resources are devoted to the health system

In 2009, the Netherlands was the second largest health spender in the OECD after the United States (Figure 3). Other countries with comprehensive social health insurance schemes, such as Belgium, Canada, France, Germany and Switzerland, have almost comparable levels of spending, but spend more on curative care and less on long-term care. Over the decade to 2008, average growth in real health spending per capita was about ½ percentage point lower than in the EU, but spending has increased relatively faster since then, reflecting rather fast growth in the volume of care as inpatient and outpatient admissions grew respectively by 3% and 10% per year. On the other hand, expenditure on outpatient prescription drugs - among the lowest in the OECD – declined in recent years as a policy-induced fall in the prices of generic drugs more than offset an increase in consumption (NZa, 2010b).

Figure 3. The Netherlands has high health expenditures¹As a percentage of GDP, 2009²

1. For Belgium, excluding investments. For Finland, Japan and Sweden, expenditure on long-term care within the health boundary conforms to a narrower definition for these countries and therefore total spending on health is likely to be underestimated.
2. 2008 for Japan and Turkey.
3. OECD average calculated based on the most recent data available for all countries.

Source: OECD (2011), *OECD Health Statistics* (database), March.

In 2010, public expenditure on health care and long-term care accounted for about 10% of GDP (Table 3). This share is set to increase as the 2010 Coalition Agreement allows public health expenditure to increase by 3 ¼ per cent per year in real terms over 2011–15, more than twice the expected expansion of GDP. Nevertheless, overspending appeared in 2011 as the public health care budget (BKZ) was exceeded by about EUR 1.4 billion (2 ¼ per cent) (Ministry of Health, 2011b), repeating an annual pattern since 2002 of excess spending of 1% to 4% (Algemene Rekenkamer - Court of Audit – 2011). The spending overruns were particularly pronounced in long-term care and mental health care. Excluding long-term care, almost half of public spending on health care goes to hospitals (Table 4).

Table 3. Public expenditures for health care and long-term care

As a percentage of GDP

	2000	2005	2006 ¹	2010 ²	2011 ²	2012 ²
Public health expenditure (% GDP)	6.0	7.1	8.5	9.9	9.9	10.1
Health care (ZFW - ZVW) ¹	2.9	3.3	4.7	5.7	5.7	5.8
Long-term care (AWBZ)	3.1	3.8	3.8	3.7	3.7	3.8
Other	0	0	0	0.5	0.5	0.5

1. In 2006 the former sickness fund scheme (ZFW) (for two thirds of the population) and private health insurance (for one third of the population) were included in a single universal public health insurance scheme (ZVW) carried out by private health insurers. As a result of the expansion of the public health insurance scheme to the entire population, the share of public health care expenditure in GDP substantially increased.
2. Figures for 2010 are preliminary; figures for 2011 and 2012 are projections.

Source: CPB (2011), *Centraal Economisch Plan 2011*, Centraal Planbureau.

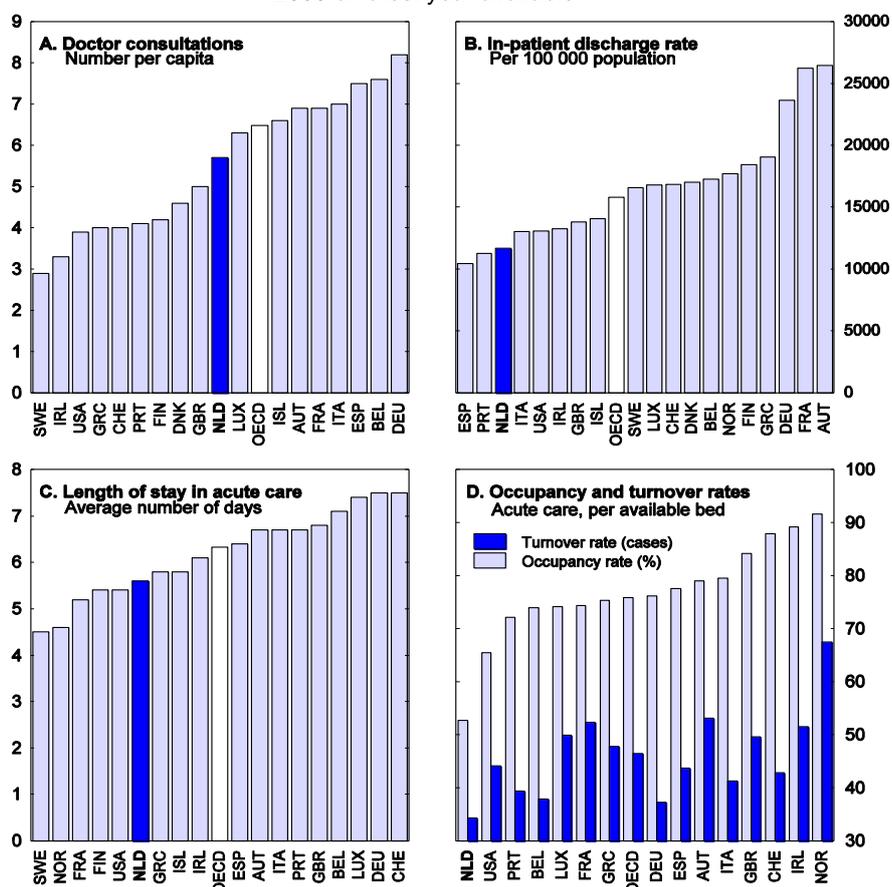
Table 4. Public health care expenditure (ZVW) by category

2011

	EUR bn	% of total
Hospital care ¹	16.5	45.6
Medical specialists (self-employed)	2.1	5.8
General practitioners	2.3	6.4
Mental health care	4.1	11.3
Prescription drugs	5.5	15.2
Other (e.g. medical devices, dental care, paramedical care, maternity care)	5.7	15.7
Total public health care expenditure	36.2	100

1. Including free-standing clinics: ZBCs.

Source: Ministry of Health (2011), "Rijksbegroting 2012. XVI Volksgezondheid, Welzijn en Sport, Tweede Kamer, vergaderjaar 2011-12".

Figure 4. Health care consultations and hospital resource use2009 or latest year available ¹

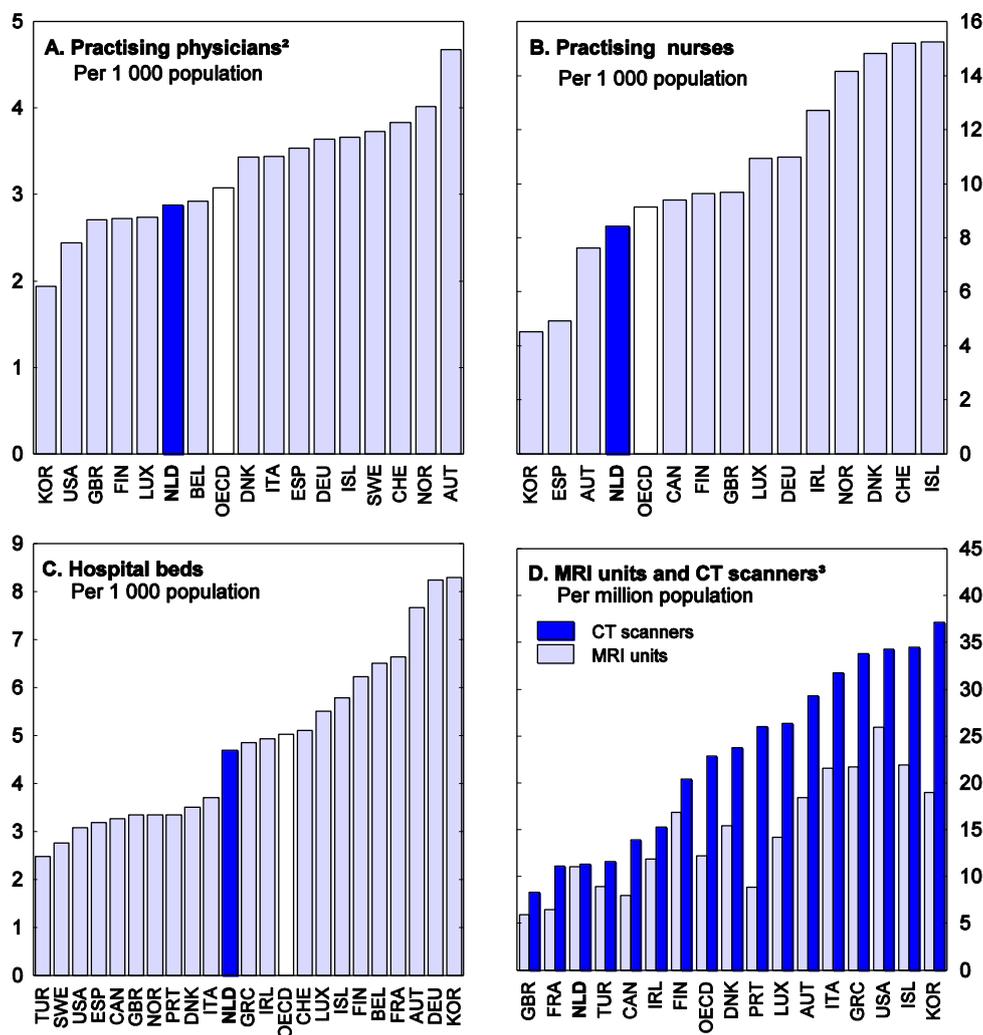
1. The latest year varies from 2005 to 2009; see source database for detail of country coverage. The OECD aggregate is an unweighted average of data available.

Source: OECD (2011), "OECD Health Data: Health Care Utilisation", OECD Health Statistics (database), December.

Despite high health care spending, the volume of health care services is low from an international perspective, both in terms of doctor consultations and hospital stays (OECD, 2010a) (Figure 4). Regarding hospitals, the number of stays (as measured by the in-patient discharge rate) and their average length in acute care are both below OECD average, but hospital bed occupancy rates are nevertheless very low. The utilisation of coronary angioplasty, which can only be performed by a restricted number of hospitals, is the lowest in the EU. By contrast, hip and knee replacement surgeries occur rather frequently as compared to other OECD countries. Despite high overall spending, the supply side is more constrained than in many other countries with a lower number of hospital beds, doctors, and modern equipment per capita (Figure 5).

Figure 5. Health care resources

2009 or latest year available ¹



1. The latest year varies from 2006 to 2010. The OECD aggregate is an unweighted average of data available.
2. Professionally active physicians value amongst OECD countries.
3. Magnetic Resonance Imaging (MRI) units and Computed Tomography (CT) scanners.

Source: OECD (2011), 'OECD Health Data: Health Care Resources database.

The health care sector was substantially reformed in the second half of the 2000s

The market failures inherent to health care provision make it very challenging to contain the cost pressures stemming from population ageing. Market failures result from asymmetric information between health insurers and care providers and between care providers and patients, creating scope for supplier-induced demand and up-coding (classifying patients into higher priced diagnostic codes). Empirical analysis suggests that no health care system performs systematically better in addressing these failures and delivering cost-effective health care (Joumard *et al.*, 2010). The Netherlands has opted for a system of regulated competition and private insurance, with wide-ranging reforms implemented since the mid-2000s to reinforce the role of market mechanisms. However, these market failures imply that competition alone is not sufficient to guarantee cost control and that measures are also needed to improve the functioning of the market both on the supply and on the demand side.

In 2006, competition among health insurers was reinforced with the introduction of the Health Insurance Act (*Zorgverzekeringswet, Zvw*), which made private health insurance mandatory for everyone. This replaced a dual system where public insurance was mandatory for about two-thirds of the population while the other third relied on voluntary private insurance. In the new system, all citizens have to pay a flat rate premium (freely set by the insurer) to their chosen health insurer and an income-related contribution to a risk-equalisation fund, which covers 50% of total health expenditure. To ensure affordability, the government provides two thirds of Dutch households with a monthly income-related allowance, accounting for about 6% of health care expenditures (Ministry of Health, 2011b). The basic idea behind the reform was to give health insurers appropriate incentives to act as prudent buyers of health services on behalf of their customers. To that end, the Health Insurance Act allows health insurers to selectively contract with health care providers.

The main result of the reform was the introduction of significant price competition between health insurers, particularly in the early stages as they competed for market share. As a result, health insurers incurred substantial losses on providing basic health insurance coverage during the first three years of the reforms (see Table 5). The losses in 2007–08 were notably offset by consistently high profits on supplementary health insurance packages, a market where competitive pressures are weaker because products are much more differentiated. The competition for market share also triggered a rapid consolidation of the health insurance market, leading the four largest health insurers to have a joint market share exceeding 90% (Table 6). This has allowed for substantial economies of scale in administration (Vektis, 2009 and 2011) and has increased (regional) buying power vis-à-vis health care providers, as providers now negotiate contracts with only five different purchasers because the five smallest insurers participate in a purchasing cooperative.

Table 5. Profitability of health insurance¹

	2006	2007	2008	2009	2010
Financial result basic insurance					
In mln EUR	-422	-125	-262	794	277
% of total revenue basic insurance	-1.5	-0.5	-0.9	2.6	0.8
Financial result supplementary insurance					
In mln EUR	40	149	264	372	376
% of total revenue supplementary insurance	1.2	4.0	6.7	8.9	8.8
Total financial result health insurance					
In mln EUR	-382	24	2	1166	653
% of total revenue health insurance	-1.2	0.1	0.0	3.3	1.7

1. Financial results comprise both technical results (insurance business) and investment results.

Source: Vektis 2009, 2010, 2011.

Table 6. Concentration of the health insurance market

2011

Rank	Name insurer ¹	Market share (%)
1	Achmea	32
2	UVIT	26
3	CZ	20
4	Menzis	13
5	DSW	3
6	ONVZ	2
7	Z&Z	2
8	ASR	1
9	Eno	1
Total		100

1. The four largest health insurance companies offer health insurance under different labels (risk bearing legal entities). Including these different labels there were 27 health insurers active in the market in 2011.

Source: NZa (2011a).

The consolidation of the health insurance market may reduce competition among health insurers, creating risks of oligopolistic behaviour. Since the beginning of the reform, small insurers have been important to discipline pricing behaviour of the four large insurers. For instance, each year one of the small insurers (DSW) is the first to set a competitive price for the basic insurance package, which serves as a benchmark for other insurers. In 2011, however, the largest of the smaller insurers (DFZ) with a strong regional presence in the province of Friesland merged with the largest health insurer (Achmea) following investigation and approval by the Competition Authority (NMa). Although the Healthcare Authority agreed with the decision, the merger may considerably weaken the collective buyer position of the remaining small insurers, meaning that subsequent takeovers of small insurers may follow, which would reduce competition in the health insurance market (Loozen *et al.*, 2011). Political concern has ensued and the Minister of Health is investigating the possibility of giving the Competition Authority specific directions about the assessment of mergers between health insurers (Ministry of Health 2011d). Such interference in the work of the Competition authority is not welcome as it risks leading to merger decisions based on political ground instead of competition considerations (which should, naturally, also take into account consumer welfare concerns such as accessibility and quality of services). Moreover, political uncertainty about merger decisions would reduce entry incentives for new (foreign) operators, thus reducing competitive pressures. Thus, clear and transparent competition-based decisions in the area of merger between health insurers should be secured by being based on published merger assessment methodology.

Reforms have had a mixed effect on cost-efficiency in the hospital sector

The reforms of the health care sector have so far had a mixed effect on the supply side. The enhanced competition among health insurers has constrained prices of hospital services and outpatient prescription drugs. Moreover, competition among hospitals has increased due to the entry of a substantial number of freestanding clinics (ZBCs). Nevertheless, health care spending has increased because of a sharp rise in the volume of care, including in mental health care (Box 1). This may notably reflect suppliers' efforts to maintain their income despite lower prices, *e.g.* via supplier-induced demand and up-coding (classifying patients into higher priced diagnostic codes) (Hasaart, 2011; Douven *et al.*, 2012). It is difficult to establish whether health outcomes have improved as a result of the reforms, but public attention for quality of care has increased substantially. On the other hand, providers' administrative costs have increased, along with the increasing number of contractual arrangements, the introduction of a highly complex product

classification system (DBC-system) and the increasing information requirements from supervisory bodies and health insurers.

Box 1. Mental health care reform - a step too far?

Until 2008, mental health care was largely covered by long-term care insurance (AWBZ). To facilitate the coordination with somatic (*i.e.* non-mental) care, mental health care was transferred to the basic health insurance scheme (ZVW), both for primary mental health care (mainly provided by psychologists) and secondary mental health care (provided by mental health care institutions, psychiatric hospitals and self-employed psychiatrists and psychologists). The reform triggered strong increases in expenditure on mental health services (Table 10) even though there is no evidence of a higher share of the population having mental health problems over the last decade (De Graaf *et al.*, 2010). The increase in expenditure may notably reflect the fact that health insurers bear only limited financial risks on mental health care because they are largely retrospectively compensated for the cost of mental care. The reason for this is that risk-equalisation for mental health care still is highly imperfect because adequate risk adjusters and data are lacking.

Table 7. Expenditures on curative mental care covered by ZVW

	2008	2009	2010	2011 ¹
Total expenditure (million euro)	3313	3575	3897	4095
% change in expenditure		7.9	9.0	5.1

1. Preliminary figure.

Source: Ministry of Health 2009, 2010, 2011b.

The government intends to replace the budgeting system of mental health institutions with an output-based payment system by 2013 (Ministry of Health, 2011b). Instead of a collectively negotiated budget with all health insurers, mental health care institutions would be paid an individually negotiated price per service. Since the introduction of an output-based payment system may provide strong incentives for extra production and supplier-induced demand, the government specified a number of preconditions that have to be met: *i*) a guarantee that total costs can be controlled; *ii*) sufficiently risk-bearing health insurers; *iii*) sufficient information about differences in quality and case-mix; *iv*) sufficient instruments for health insurers to direct patients to efficient providers; *v*) a good and stable system of product classification; *vi*) adequate prices per service; *vii*) unambiguous methods of diagnosis. By 2015, it is planned that health insurers will be fully exposed to the risk for the cost of mental health care. However, none of these preconditions is currently met.

The introduction of an output based financing scheme is particularly risky in mental health care, as this area is more susceptible to market failures, such as risk selection, moral hazard and supplier-induced demand, than other health services (Frank and McGuire, 2000). Moreover, meeting the preconditions is not a trivial task, particularly within such a short time frame. More fundamentally, it is inherently difficult to predict mental care utilisation (and costs) and important explanatory factors cannot be translated into measurable risk adjusters, implying that the full exposure of health insurers to financial risks in this area may result in risk selection and underinvestment in capacity (Frank and McGuire, 2000 and WOR, 2011).

The reforms divided prices for hospital services into a regulated and a freely negotiated segment. The so-called segment A consists of hospital services for which regulated prices are derived from a global hospital budget. The segment B consists of hospital services where prices are freely negotiated with health insurers, and typically comprise less complex services (*e.g.* knee and hip replacements). The share of segment B has increased from less than 10% in 2005 to more than 30% in 2011 and 70% following the 2012 reform (described below). At the same time, real prices in the segment B have declined, reflecting the increased bargaining power of health insurers (Table 7). Nevertheless, substantial price variations across segment B providers remain, with university hospital prices being 7.5% higher and prices in free-standing clinics (ZBCs) 14% lower than average. Because of insufficient information collection, it cannot be established to what extent this can be attributed to differences in efficiency, case-mix or market power.

Table 8. Changes in negotiated average prices in the hospital segment B

	Percentage				
	2006	2007	2008	2009	2010
Changes in nominal prices ¹	0.0	2.1	1.1	1.5	-1.8
Changes in real prices ²	-1.2	0.5	-1.3	0.2	-3.3

1. Price changes are weighted by the share in revenues of the clusters of hospitals services by which the free hospital segment B was successively expanded.
2. The consumer price index is used as the deflator.

Source: NZa (2011b), "Marktscan Medisch specialistische zorg. Weergave van de markt 2006-2010".

Despite the decline in real prices in the segment B, total real hospital expenditures have increased by an annual 4%. This may notably reflect supplier-induced volume growth in the segment B - as suggested by the differences between treatments provided by salaried and self-employed specialists – up-coding (classifying patients into higher priced diagnostic codes), and excessive billing (in about five per cent of cases) (Hasaart, 2011; Douven *et al.*, 2012).² Since 2003, hospital productivity has increased by 15%, partly thanks to a 35% improvement in labour productivity of nursing personnel (Blank *et al.*, 2011). Further scope for efficiency improvements comes from the fact that general hospitals are often operating on an inefficiently large scale, reflecting a lack of specialisation and a tight network of large hospitals that ensures most people have access to an emergency unit within less than 15 minutes (Blank *et al.*, 2011). Indeed, the hospital sector is consolidating despite limited financial pressure to do so as profitability has remained roughly unchanged and because of the mandatory non-profit status of hospitals (*i.e.* they are not allowed to pay dividends) (NZa, 2011b).

So far, all hospital mergers have been approved by the Competition Authority. In one particular merger case, a regional monopoly was only allowed in view of efficiency considerations relating to the quality and the accessibility of care. This lenient merger stance reflects a lack of a clear-cut assessment methodology, limited agency capacity, an aversion against potential drawn-out legal procedures and political interference in high-profile cases (Varkevisser and Schut, 2008, 2010). Political concern about mergers has led the Parliament to propose a moratorium on mergers, although associated legal instruments are not in place (Ministry of Health, 2011d). Instead, the Minister of Health wants the Healthcare Authority (NZa) to carry out additional merger assessments in terms of quality and access (Ministry of Health, 2011c, d). However, having several institutions involved in merger assessments would increase unnecessarily regulatory uncertainty without improving the prevention of anticompetitive mergers. To ensure an effective hospital merger assessment, the Competition Authority should develop a clear methodology taking into account all relevant aspects of the problem (including consumer welfare concerns such as accessibility of care). This would boost agency capacity, improve transparency in the decision making and prevent political interference. In addition, given the Dutch hospital market's long-standing tradition of collective bargaining, concerted practice and substantial entry barriers, the Competition Authority should rather risk being too restrictive than too permissive when assessing hospital mergers (Varkevisser and Schut, 2012).

2. Until 2010, the regulator could not administratively disentangle hospital revenue growth into a price and a volume effect because of the expansion of the segment B and the recalculation of the budgets in the regulated segment A (NZa, 2010a). In 2010, however, the regulator found that the production of services in the segment B increased by 8.6%, a much higher rate than in the segment A (NZa 2011b). An empirical investigation based on more than 2 million inpatient hospital discharge diagnoses also found evidence of a stronger spending growth in the free segment B than in the segment A (Hasaart, 2011).

The remuneration of doctors has increased

The health care sector reforms further increased the already high incomes of doctors. Around the time of the reform, the annual remuneration of medical specialists and general practitioners (GP) was high, notably reflecting relatively limited supply (Tables 8 and 9). Following the reforms, doctors' revenues increased sharply, before moderating. Specialists' total revenues increased by more than an average 20% per year over 2007-08 before slowing to 6 ½ per cent growth in 2009 (NZa, 2011b), while their number was growing by only 4-5% per year over the period (Capaciteitsorgaan, 2010). GPs' total revenues grew by more than 20% in 2006, but rapidly moderated afterwards (NZa, 2009, Gusdorf *et al.*, 2009).

Table 9. Remuneration, as ratio to average wage in each country

2009, or latest year available

	GPs		Specialists	
	Salaried	Self-employed	Salaried	Self-employed
Australia (2008)		1.7		4.3
Austria (2007)		2.7		4.4
Canada (2008)		3.1		4.7
Czech Republic (2008)			1.8	3.3
Denmark ¹		2.8		4.0
Estonia	1.7		2.1	
Finland	1.8		2.6	
France(2008) ²		2.1		3.2
Germany (2007)		3.7		5.0
Greece			2.8	
Hungary ³	1.4		1.6	
Iceland ⁴	3.0		2.8	
Ireland ⁵		3.5	4.5	
Italy			2.6	
Mexico	3.5		4.6	
Netherlands (2007)	1.7	3.5	2.9	5.5
New Zealand				
Norway			1.8	
Slovak Republic	1.9			
Slovenia	2.5		2.8	
Spain	1.9			
Turkey	2.0		3.8	
United Kingdom (2008/2009) ⁶	1.9	3.6	2.6	

1. Data for self-employed specialists is for 2008.
2. Remuneration is net income rather than gross income resulting for an underestimation.
3. Data on salaried doctors relate only to public sector employees who tend to receive lower remuneration than those working in the private sector.
4. Many specialists working in hospitals also earn incomes from private practices which are not included.
5. Data for self-employed GPs include practice expenses resulting in an over-estimation.
6. Remuneration of GPs is for 2008.

Source: OECD (2011), Health at a Glance 2011.

Table 10. General practitioners and specialists per 1 000 population

2010, or latest year available

	GPs	Specialists	Physicians
Australia	1.49	1.5	2.99
Austria	1.57	3.23	4.80
Belgium	1.14	1.79	2.93
Canada	1.12	1.23	2.35
Czech Republic	0.70	2.86	3.56
Denmark	0.67	2.75	3.42
Finland	1.02	2.07	3.09
France	1.60	1.67	3.27
Germany	0.65	2.98	3.63
Greece	0.28	5.84	6.12
Hungary	0.35	2.68	3.03
Iceland	0.57	3.02	3.59
Ireland	0.57	3.65	4.22
Italy	0.78	2.67	3.45
Korea	0.81	1.12	1.93
Luxembourg	0.80	1.93	2.73
Mexico	0.75
Netherlands	0.72	2.17	2.89
New Zealand	0.75	1.86	2.61
Norway	0.81	3.21	4.02
Poland	0.21	1.96	2.17
Portugal	1.98	2.28	4.26
Slovak Republic	0.41	2.59	3.00
Spain	0.74
Sweden	0.62	3.10	3.72
Switzerland	0.60	3.23	3.83
Turkey	0.48	0.95	1.43
United Kingdom	0.79	1.94	2.73
United States	0.30	2.14	2.44

Source: OECD (2011), *OECD Health Statistics* (database), March.

Similar factors were behind remuneration developments of specialists and GPs. Nearly half of medical specialists are working within hospitals as self-employed entrepreneurs (mostly as members of a partnership – a “maatschap”).³ In 2008, their remuneration was changed from lump-sum payments per hospital into payments per Diagnosis Treatment Combination (DBC), which essentially is an output-based payment system, giving them much stronger incentives to provide more (or more expensive) services. An additional factor behind higher remunerations was substantially miscalculated prices for certain services by supporting specialists, such as anesthesiologists and radiologists, due to overestimations of the workload associated to these services.

3. The share of self-employed specialists has declined over the past decade from 56% in 1999 to 44% in 2007 (Capaciteitsorgaan 2010). The mirror image is the increase in the share of salaried specialists, although the practise varies widely across medical specialities with less than one third of cardiologists, radiologists, urologists, orthopaedic and cosmetic surgeons to more than 90% among paediatricians and clinical geriatricians.

The remuneration system for GPs was reformed in 2006. Previously, it was based on a capitation basis for two thirds of the population and a fee-for-service basis for the other third of the population. The new system is a hybrid system for all patients, with part capitation – an annual “registration fee” per patient – and part fee-for-service. Both registration fee and fee-for-service have regulated maximums, *e.g.* EUR 9 for a standard visit of 10 minutes, which in practice have become fixed prices. This, together with a change in GPs’ claims behaviour and an increase in supplier-induced demand (as reflected in the more than doubling of the number of long consultations and home visits), explains the rapid increase in GPs’ remuneration observed in 2006 (NZa, 2009, CBS, 2011). Since 2010, primary care groups and health insurers are allowed to negotiate bundled payments for providing coordinated care to people with specific chronic diseases (diabetes, vascular risk management, chronic obstructive pulmonary disease - COPD). This reform of GP remuneration fostered changes in the organisation of GPs, of which the effects on cost-efficiency are currently evaluated (Box 2).

Box 2. Will the organisation of GPs into primary care groups improve cost-efficiency?

In recent years, the proportion of GPs participating in primary care groups offering integrated care to patients with chronic diseases rapidly increased to about 80% of GPs in 2010. Since 2010, primary care groups and health insurers are allowed on an experimental basis in the period 2010-13 to negotiate integrated (or bundled) payments for providing coordinated care to people with specific chronic diseases (diabetes, vascular risk management, chronic obstructive pulmonary disease - COPD).

It is still too early to assess whether primary care groups are cost-effective (EIB, 2011). On the one hand, primary care groups may improve the coordination of care for chronic diseases and reduce unnecessary hospitalizations. Bundled payments could also be a useful first step towards integrated (risk-adjusted) capitation payments for multidisciplinary provider groups offering primary and specialist care for a defined group of patients (De Bakker *et al.* 2012). On the other hand, there are concerns about potential negative effects, including double payments for the same service (*e.g.* rewarding the treatment of co-morbidities – patients with multiple diseases – both via bundled payments and regular payments), risk selection (providing integrated care primarily to favorable risk groups), abuse of market power (several regional provider groups having a near monopoly position) and high transaction costs.

Measures have been taken to rein in the resulting budget overruns. The 30% overrun in the 2008 budget for specialist treatment led the Healthcare Authority (NZa) in September 2010 to impose substantial discounts on regulated prices. Nevertheless, the 2010 budget was exceeded by roughly 10% as the effects on remuneration of the price reductions were more than offset by additional production of medical services, following the introduction of output-based payment. This reflected the lack of countervailing power by health insurers to curb volumes of services, pointing to the benefits of allowing (limited) vertical integration between insurers and hospitals to reduce information asymmetries and thus to strengthen the position of insurers to counter-act supplier-induced demand.

The number of doctors is still low in comparison to other OECD countries despite a 30% increase in the number of specialists over the past decade (Table 9) (Capaciteitsorgaan, 2010). Looking ahead, the Healthcare Authority (NZa) expects shortages to develop as a result of demographic trends and an increasing share of part-time GPs (NZa, 2009). In this context, the government rightly aims at expanding the capacity of medical schools and the number of hospital training positions, as both are identified causes of supply restriction (Capaciteitsorgaan, 2011). Foreign doctors represent another potential source of doctors. In this domain, European candidates (from the European Economic Area) enjoy relatively easy access as their diplomas are recognised, while non-European candidates are subject to a governmental standardised assessment of medical skills and a language test. To facilitate entry for the latter group, it could be considered to exempt holders of diplomas from top universities from the medical-skills components of the assessment.

A concern with increasing the supply of specialists is that it may lead to more supplier-induced demand – a consideration that was a traditional reason for restricting their number. However, restricting the number of specialists is no longer a solution in a more market-oriented system, as it would reinforce their bargaining position and hence their ability to influence prices upwards. Thus, a progressive increase in

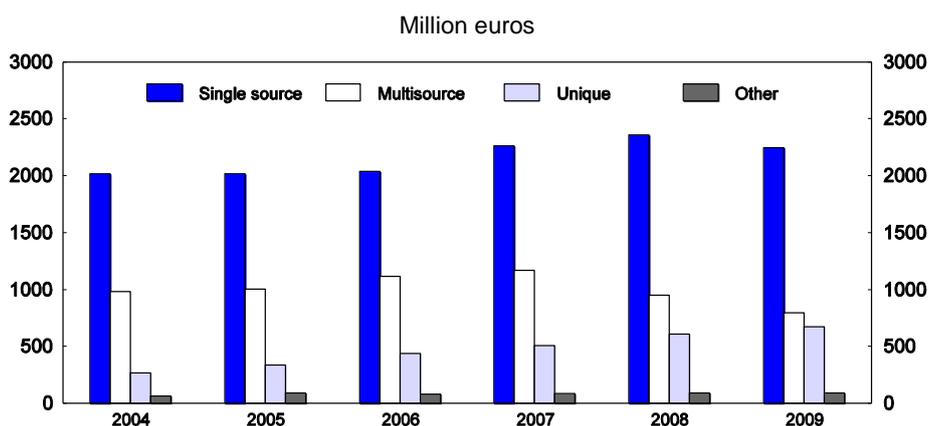
supply should be encouraged (which, given the lengthy medical training programmes, may take a long time), but it should be preceded by measures to prevent supplier-induced demand, such as changing the payment system (*e.g.* becoming performance based, see below) and strengthening the bargaining position of health insurers. Important steps in this direction are planned in the next wave of reforms (see below). Moreover, the share of self-employed specialists could be further reduced by filling vacancies with salaried specialists when possible.⁴

The reforms have lowered drug costs

Perhaps the strongest effect of the health sector reforms was lower generic drug prices (Boonen *et al.*, 2010). Before 2008, ineffective regulation kept generic drug prices high as pharmacies were allowed to charge health insurers the suppliers' official list price. At the same time, suppliers of off-patent drugs competed for market share by offering discounts to pharmacists, who had no incentive to pass these discounts on to health insurers. Until 2003, health insurers had to reimburse the full cost of all drugs covered by social health insurance, up to a legally determined reimbursement limit. As a result, generic drug prices were all close to the reimbursement limit, allowing pharmacies to make large profits. Attempts from the government to claw back part of the discounts offered to pharmacists were only marginally successful (Boonen *et al.*, 2010).

Encouraged by stronger price competition since the 2006 reform, four of the five biggest health insurers started in 2008 to experiment with "preferred drug" formulas, where patients choosing a non-preferred drug are only reimbursed up to the price of the preferred drug (usually the lowest priced generics within the same therapeutic class). In parallel, health insurers started to issue tenders for contracts to supply several high-volume generic drugs. As a result, list prices of the ten biggest-selling generics fell by between 76% and 93%, leading to estimated savings of EUR 348 million (69%) per year (Boonen *et al.*, 2010). In 2009, the preferred drug formulas were extended to include more generic drugs and adopted by more health insurers. Together with a reduction in the scope of the basic benefits package, this led to a first ever decline (of 5%) in total expenditure on outpatient prescription drugs covered by basic health insurance (NZa, 2010b). Over the period 2007-09, expenditure on multisource drugs (sold under multiple trademarks) decreased by more than 30% despite an increase of about 12% in utilisation (Figure 6).

Figure 6. Expenditure on outpatient prescription drugs



Source: NZa (2010), Monitor Extramurale farmacie 2010, Nederlandse Zorgautoriteit.

4. Often self-employed specialists work in partnerships, implying that if a salaried specialist replaces a (retiring) self-employed specialist. This creates a classic insider-outsider situation where insiders have little incentives to cooperate with the outsider as they want to preserve the goodwill value of the partnership.

The next wave of reform

The reforms in the second half of the 2000s have not (yet) delivered the hoped-for results. In 2010, a government commission concluded that the health care system was “stuck in the middle” between a centrally planned and a market-oriented system, preventing the government from controlling costs and health insurers from being cost-effective purchasers of care (Werkgroep Curatieve zorg, 2010). Health insurers had insufficient incentives because of the still prevailing substantial *ex post* compensations and a lack of adequate instruments because of remaining government regulation of prices, supply and entry in various sectors. These problems were further compounded by a lack of an adequate system of product classification (DBC) and a lack of reliable and publicly available quality information (performance indicators) due to insufficient patient level data and an inadequate information infrastructure (OECD 2010b, Klazinga *et al.*, 2012).

To address these problems, the government is implementing an extensive set of reforms to strengthen the role of market forces in the provision of health services and to secure cost containment (particularly for hospitals and self-employed medical specialists). The latter is explicitly formulated as keeping public health care expenditure within an annual growth rate of 3 ¼ per cent. The main policy measures in the hospital sector include both a sizeable extension of the “market-based” segment B (where prices are negotiated) and the introduction of a new powerful legal instrument to enforce overall spending ceilings (Box 3). The government also intends to establish a new institute for health care quality to boost the development and dissemination of adequate performance indicators and evidence-based guidelines. Given the prevalence of asymmetric information problems, the production of such (performance) indicators should be given priority.

Box 3. Main reform measures in the hospital sector 2012-15

The government’s package for reforming the hospital financing system focuses on strengthening incentives for hospital efficiency while trying to contain costs (Ministry of Health, 2011a):

- Expansion of the “market-based” hospital segment (segment B) from 35% to about 70% of hospital revenue.
- Replacing the budgeting system in the regulated hospital segment (segment A) with an output-based payment system with regulated prices, either in the form of maximum or fixed prices. Maximum prices will be set for hospital services for which effective competition is not feasible, such as complex treatments concentrated in a few hospitals (*i.e.* areas with high entry barriers). Fixed prices will be set for services for which sufficient capacity has to be permanently on standby, but for which demand is irregular and unpredictable (*e.g.* emergency rooms, trauma centers, burn centers). During the first two years, hospitals will be partly compensated for the reallocation effects as a result of the new payment system (in 2012 for 95% and in 2013 for 70%).
- *Ex post* compensations for health insurers will be fully phased out by 2015.
- In 2012, a new system of product classification (DOT) has been introduced, reducing the number of hospital products (DBC) from about 30 000 to about 4 400, which should be more transparent and manageable.
- From 2012 onwards, a new legal “macro budget instrument” should guarantee that total annual hospital expenditure does not exceed a government-set limit. If the aggregate revenue of all hospitals exceeds this macro budget, all hospitals have to repay the excess revenue in proportion to their respective market share. The new macro-budget system implies that the budget (or revenues) of each individual hospital not only depends on its own performance but also on the performance of other hospitals.

Starting in 2012, the payment system of self-employed specialists will be reformed, based on a new agreement between the government and the associations of medical specialists (OMS) and hospitals (NVZ) (Tweede Kamer, 2011):

- From 2015, integrated prices for hospital and medical specialist care will be negotiated between

health insurers and hospitals (in the segment B) or set by the government (in the segment A).

- During a transition period (2012-14) a macro budget for medical specialist services (initially set at about EUR 2 billion and increasing by 2 ½ per cent per year thereafter) is derived from the general macro budget for health care expenditures covered by public insurance (BKZ). Based on a normative allocation model, the Health Authority (NZa) calculates a budget for medical specialty care for each individual hospital.
- At the individual hospital level, allocation models for the remuneration of medical specialists have to be developed. The largest share of the budget (75% to 85%) will have to be allocated to remuneration of specialists' regular activities, and a smaller variable part (15% to 25%) to the remuneration of practice costs, extra activities and for the hospital management to reward good performance.
- If medical specialists produce more services than allowed by the budget, then the hospital will have to reimburse the additional payments to the Health Insurance Fund.

Despite the stated objective, some of the measures could hamper the emergence of stronger competition in the health sector. For example, the government intends to prohibit vertical integration of health insurers and care providers, with temporary exceptions for starting a new innovative provider and for securing provision of essential services (Ministry of Health, 2011c). The idea is to prevent insurers from foreclosing by directing their customers to their own providers. However, (limited) vertical integration between insurers and providers has the potential to reduce information asymmetry between them and thus to increase efficiency, while mergers resulting in excessive market power can be stopped by the Competition Authority. The government has also concluded agreements with the associations of hospitals, medical specialists and health insurers to limit spending increases on hospital and medical specialist care to 2.5% per year in real terms for 2012-15, by having hospitals and health insurers concentrating and specialising on complex hospital care. This approach goes against the reform thrust of improving efficiency incentives via stronger competition and appears at odds with the competition law's prohibition of market sharing arrangements. Finally, the phasing out of *ex post* compensations for health insurers over the period 2012-15 may not only increase insurers' incentives for efficiency but also for risk selection and underinvestment in the organisation and treatment of chronic diseases that are not sufficiently compensated by the *ex ante* risk equalisation scheme (Van de Ven *et al.*, 2009). Thus, a further improvement of the risk equalisation scheme is necessary to secure unrestricted access to high quality care services.

At the same time, the measures to curb spending growth may not suffice. The threat of a general *ex post* "revenue tax" if total hospital costs exceed the imposed macro budget gives individual hospitals strong incentives to overspend as they anticipate similar strategic behaviour by other hospitals. The weaker the competitive pressure facing hospitals, the more scope they will have to increase prices (and profit margins) to reduce the impact of a future "revenue tax". This means that, paradoxically, hospitals in the most competitive regional markets may be most hurt, which could, in an extreme case, lead to higher concentration in the market if hospitals in financial distress are taken over. In addition, uncertainty about the revenue tax deters new entry and investments in innovation, further cementing the position of incumbents.

Arguably, health insurers should counteract upward pressures on prices resulting from hospitals' strategic behaviour. However, their ability to do so has been hampered by the introduction of the new product classification system, which has put them at an information disadvantage vis-à-vis hospitals. In this respect, the new payment system for medical specialists may be helpful, at least for the period 2012-14, because normative budgets per hospital for medical specialist care may limit incentives for overproduction. In addition, several health insurers have negotiated fixed budgets with hospitals in 2012, which may also reduce incentives to induce demand. However, if these budgets are not sufficiently risk-adjusted, they may induce hospitals to select favourable risks and to refer expensive patients to other hospitals.

The macro budget instrument may also result in crowding out of complex hospital care with regulated prices (segment A). If prices in the “market-based” segment (segment B) rise faster than regulated prices (segment A) in anticipation of future “revenue taxes”, then investing in more complex (regulated) services will become increasingly unattractive due to the relatively lower profit margins. This would induce specialised hospitals to become general, boost waiting lists and reduce consumer welfare. In addition, longer waiting list may lead patients to use their right to go abroad to receive treatment, further reducing the effectiveness of this instrument in controlling costs.

To reinforce macro budget control, priority should be given to a range of measures to enhance efficiency. These include improving quality information to enable performance-based contracting, creating room for providers and health insurers to develop alternative payment methods based on performance and financial risk-sharing (*e.g.* risk-adjusted capitation payments) and allowing (limited) vertical integration of health insurers and providers. In addition, hospitals’ access to capital markets could be expanded by revoking their mandatory non-profit status, a move that should be accompanied with measures to secure the orderly exit of bankrupt hospitals, notably in terms of providing essential services, and to ensure an effective and transparent merger control.

Copayments, which are among the lowest within the OECD, could be a supplementary tool to control public spending in a more demand-driven system. They could also encourage patients to make choices that take price and quality into consideration. Although low copayments appear to have contributed to relatively low socio-economic inequalities in health, there is little reason for maintaining them for higher income groups, particularly as high income individuals are substantially less price sensitive than lower income individuals and thus require higher copayments to achieve the same reduction of moral hazard (Newhouse *et al.*, 1993). Hence, the deductible (*i.e.* the fixed amount of medical expenses that people have to pay out-of-pocket), which in the basic health coverage is set at EUR 220 per year, could be raised for middle and high income groups. In addition, the current exemption of GP consultations from the deductible could be abolished to encourage cost-effective consumer choices. Given that the fee for GP consultations is small (EUR 9), abandoning this exemption would not impede access.

The design of the copayment system could also be improved for chronically ill people, who currently know in advance that they will inevitably pay the full deductible. In such cases, alternative copayment structures may generate stronger incentives for cost-effective choices and be more equitable (Van Kleef *et al.*, 2009). For instance, the starting point for the fixed deductible for chronically ill people could be shifted from zero medical expenses (*i.e.* covering expenses from EUR 0 to EUR 220) to a higher starting level (*e.g.* expenses from EUR 1 000 to EUR 1 220, depending on a “standard” anticipated average expense for each chronic disease). For these people, this would make cost-effective choices more rewarding within the threshold of EUR 1 220. It would also entail a more equal distribution of out-of-pocket expenses between the healthy and the chronically ill by giving chronically ill people a chance to spend less than the full deductible.

Population ageing will put pressure on a costly long-term care system

Spending on long-term care, at 3.8% of GDP in 2009, is more than twice the OECD average, reflecting the comprehensiveness and generosity of the system as well as a traditionally high reliance on institutional care (Box 4.). However, the high spending is not accompanied by obviously better outcomes and is partly the result of a comprehensiveness that include even smaller menial tasks – services that are not provided in many other countries (Eurobarometer, 2007). Over the last decade, spending has been spurred by rising quality standards, higher take-up attracted by the accessibility of the cash benefits scheme and possibly by stricter access to other social safety nets (Mot, 2010).

Box 4. A comprehensive public long-term care system

The public long-term care insurance system was created in 1968 – the first in the OECD – and provides universal coverage of a broad range of long-term care benefits. The system mainly serves elderly people (three quarters of patients are over 65) and physically or mentally handicapped persons. Coverage is broad, as it notably includes accommodation costs in nursing homes and home help for domestic activities. Income-dependent copayments by patients are relatively low by OECD standards, amounting to around 10% of costs (Colombo *et al.*, 2011). They are capped at EUR 12.60 per hour at home (roughly a third of the average cost) and EUR 1 800 per month in institutions, and do not take into account patients' assets but only their revenues. The remaining funding of the system comes from social security contributions (around 60% of costs) and taxes (around 30%).

Care in institutions plays a larger role than in most other OECD countries despite effort to encourage home care over the last decades. Institutional patients account for 40% of the 600 000 long-term care patients (Ministry of Health, 2011e). In 2009, 6.6% of the elderly population (aged over 65) was institutionalised, one of the highest rates in the OECD, even though half of them had only light or moderate care needs (Pommer, 2012).

Long-term care is mostly a central government responsibility, under the framework of the Exceptional Medical Expenses Act (AWBZ), which covers both care at home and in institutions. Only the provision of home help for domestic activities has been delegated to the municipalities in 2007 as part of a broader decentralising pattern. For institutional and home care (with the exception of home help), 32 regional care purchasing agencies (*zorgkantoren*) have been mandated to buy care with public funds. The agencies are generally subsidiaries of the dominant health insurer in each region. These agencies have no budget of their own (except for administrative costs), as care providers are directly paid from a general public fund (AFBZ) on the basis of contracts concluded with purchasing agencies. Hence, purchasing agencies bear no financial risk on purchasing care. Institutional care tariffs are regulated, while home care prices result from bargaining between purchasing agencies and providers. Institutional care providers must be non-for-profit organisations, while the home care market has been opened to for-profit companies.

Patients' eligibility for care is assessed by an independent Care Assessment Centre (CIZ), except for home help where the assessment lies with municipalities. The centre decides if patients are eligible for care in an institution or at home and how much care they are entitled to. Once assessed, patients can opt either to receive in-kind care or a cash benefit ("personal budget") that is equivalent to 75% of the cost of in-kind care. Cash benefits account for 11% of total expenditure, after having grown by an annual 20% since 2002.

Population ageing will boost the number of dependant elderly people by a factor of 2 ½ to almost 1 million by 2060, which means that, with current policies, long-term care spending would reach 8.1% of GDP by 2060 – more than three times the then EU average (European Commission, 2009). Securing cost-efficient provision of long-term care is key to mitigating spending pressures while maintaining high quality services – a difficult task for which international experience is still limited (Colombo *et al.*, 2011; Schut and Van den Berg, 2010). In this context, the main challenges are to reorganise the system to improve efficiency incentives, to reduce further the dependence on institutional care, and to better target patients as the rapid uptake in the cash benefits system has exposed screening problems.

The main issue with the current organisation of the long-term care system, which is fairly different from the health care system, is the lack of financial incentives of regional care purchasing agencies (*zorgkantoren*). As they face no financial risk on care purchase (Box 4), purchasing agencies are not inclined to bargain with care providers on price and quality. In the home care sector, this has led prices to stay very close to the regulated maximum tariff. It has also undermined competition in the home care market, which is highly concentrated and where large providers have been able to charge higher prices (Mosca *et al.*, 2007). The overall cost of these inefficiencies is hard to assess, but may be significant, as suggested by the substantial improvements in cost-efficiency following the decentralisation of home help to municipalities (Box 5).

Box 5. The decentralisation of home help has improved cost-efficiency

Home help for domestic activities (e.g. house cleaning, cooking) was decentralised to municipalities in 2007 by the new Social Assistance Act (WMO), which provides support services to people in vulnerable situations. Municipalities are given a non-earmarked budget and have a large degree of freedom about how to organise help. They assess patients' needs and purchase help for them.

Because of non-earmarked budgets, municipalities bear financial risks on home help, giving them incentives to bargain intensively with help providers. The resulting spur in competition has helped reducing the average price of an hour of help by more than 20% from 2005 to 2008. Prices subsequently recovered, but they still stand below pre-decentralisation levels (van der Torre *et al.*, 2011).

Overall, municipalities were able to save EUR 150 million in 2007 over a EUR 1.2 billion budget (distributed on the basis of historical spending) and collected EUR 200 million of copayments, generating EUR 350 million for other spending purposes. The consequences on the quality of home help have been a source of debate, with 40% of clients reporting a quality deterioration following the decentralisation. However, high quality standards have apparently been maintained, as patients still award home help an average score of 8 out of 10 (de Klerk *et al.*, 2010).

Further decentralisation of home care has the potential to enhance efficiency

The government plans to abolish the regional purchasing agencies by 2013 and to transfer most of their purchasing responsibilities to health insurers and increase municipalities' home care responsibilities. Municipalities will get responsibilities for home assistance (e.g. help with administrative tasks) and home care for lightly mentally handicapped young people (Box 6). Municipalities will receive non-earmarked budgets, giving them strong incentives to contain costs. Better screening and synergies with other decentralised social assistance schemes, such as activation of social security recipients, may also help to improve cost-efficiency. A potential problem is that municipalities will have incentives to redirect patients towards centrally funded and more expensive institutional care to reduce their own costs, leading to higher overall spending. To encourage municipalities to keep patients at home, they should be rewarded financially for reducing institutionalisation rates. To further stimulate home care, this measure could be complemented with making patients bear a larger part of their accommodation costs in institutions.

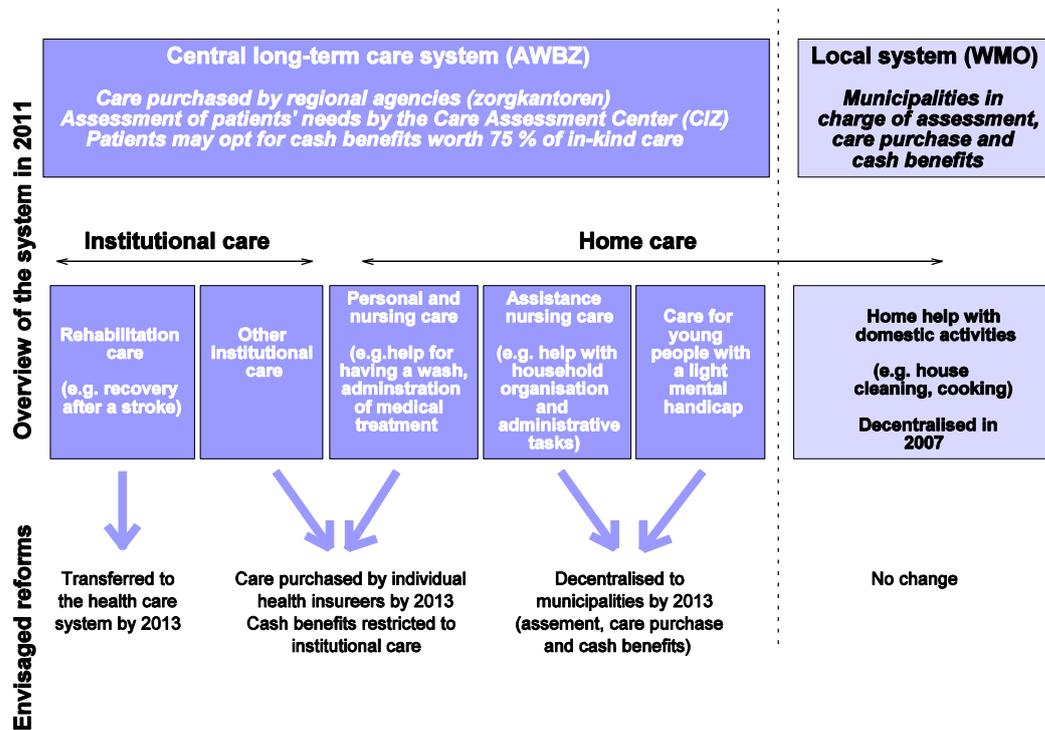
Box 6. The government's reform agenda for long-term care

Further decentralising to municipalities and giving a bigger role to health insurers

- Along the line of the decentralisation of home help to municipalities in 2007, progressive decentralisation of other components of home care by 2013: assistance (budget of around EUR 2 billion) and care for young people with a light mental handicap (around EUR 3 billion).
- Transfer of the responsibility to purchase the non-decentralised parts of home care (nursing and personal care) and institutional care from regional agencies (*zorgkantoren*) to health insurers by 2013 (Figure 3.7). Insurers would then have to buy long-term care for their own health insured, replacing the current system where regional agencies buy care for all residents of a region regardless of their insurance company.

Box 6. The government's reform agenda for long term care (cont'd)

Figure 7. Main features of the envisaged reorganisation of the long-term care system



Source: Ministry of Health, Welfare and Sport.

Limiting the target group, notably for cash benefits

- Reduction of the accessibility of cash benefits to patients eligible for institutional care (10% of the 130 000 cash benefits recipients).
- Reduction of the accessibility of institutional care for patients with lighter care needs. Lowering of the IQ criteria to assess mental handicap care from 85 to 70 by 2013.

Improving the quality of care and other measures

- Measures to strengthen clients' rights vis-à-vis care providers. Creation of a Quality Institute to spread good practices. Simplification of assessment procedures.
- Extra budget of EUR 0.9 billion from 2012 to raise the tariffs of care for self-employed by 5% and encourage hiring and training of care workers.
- Separation of institutional care costs and accommodation costs in institutions from 2012. Since 2009, care costs are reimbursed on the basis of patients' care needs (*ZZP packages*) and institutions are free to build new capacity but at their own financial risk, with a gradual transition period until 2017.

Source: Ministry of Health, 2011, *Programmaproject langdurige zorg*, DLZ/KZ-U-3067294 and Ministry of Health, 2011, *Voortgangsrapportage Hervorming langdurige zorg*, Z/M-3089172.

Health insurers should not be given a bigger role without adequate financial incentives

In the non-decentralised part of the system (*i.e.* institutional care and personal home care), the government intends to give health insurers the responsibility to buy care for their own patients, in the same manner as in the health care system. This would presumably reduce coordination costs between health and long-term care. However, there are no plans to make insurers bear the associated financial risks until a risk-equalisation scheme for long-term care is developed, in order to avoid risk-selection issues. An issue is that designing such a scheme is complicated and may not be feasible at all, notably because of the lack of readily available data on potentially good predictors of individuals' future long-term care expenses (Schut and Van de Ven, 2010).⁵

As long as health insurers do not bear financial risk on purchasing care, they will lack incentives to do it efficiently, leading to more costly provision. Moreover, insurers will have incentives to shift patients from insurer-paid health care to publicly funded long-term care, inducing further increases in public spending (Besseling *et al.*, 2011).⁶ Thus, transferring care purchasing to health insurers should only be considered if they can bear the financial risks associated, *e.g.* within an appropriate risk-equalisation scheme. If such a scheme can be developed, elderly care (both at home and in institutions) could be included in the basic health insurance package. This would also require improving the current health care risk-equalisation scheme to reduce the losses that insurers currently make on long-term care patients' medical expenses (*i.e.* expenses non related to long-term care), which would make them reluctant to compete for long-term care patients (Schut and Van de Ven, 2010).⁷

Alternatively, there are several other options to improve the system's organisation, which all have in common that they should be combined with better targeting (see below). A first option is to give regional purchasing agencies more incentives for cost-efficiency within the current framework, for example by introducing bonuses for agencies that meet certain performance targets in terms of the quality and efficiency of contracted care. This would require measuring the quality of care with sufficient reliability and broadness, which can be difficult (*e.g.* in obtaining information from frail patients in declining conditions) as shown by the mixed results of the first international experiments on such pay-for-performance schemes (Colombo *et al.*, 2011). However, the long-term nature of the patient-provider relationship could contribute to addressing such measurement issues. To make purchasing agencies cost-efficient it is also important to ensure that they cannot shift patients to schemes funded under other budget lines. This happened with cash benefits until 2012, allowing the purchasing agencies to respect the regional provider budgets, but at the expense of persistent budget overruns on cash benefits.

A second option is further progressive decentralisation of home care to municipalities, taking advantage of their incentives for cost containment with a non-earmarked budget. Delegating all home care provision (*i.e.* both personal and domestic care) to municipalities would also present the advantage of reducing coordination costs. One exception may be specialised care, for which municipalities could lack

-
5. Having good predictors to assess individual risks is especially important in long-term care because long-term care expenditures are concentrated in a small part of the population and are typically very high. However, there is hardly any research about such predictors so far, and there are no data readily available on potentially good predictors, such as individuals' limitations in activities of daily living (ADL) or the availability of social support networks (an important predictor of the availability of informal care).
 6. Another complication of making health insurers financially accountable for covering long term care is that they will have build up financial reserves to meet solvency requirements.
 7. Including home care in the basic health package, however, would make the coordination with home help and social care more difficult.

economies of scale and scope – which could be addressed via cooperation between municipalities or via centrally provided technical support. As mentioned above, decentralisation should be combined with financial rewards to municipalities to encourage homecare in order to avoid the redirection of patients towards centrally funded institutional care.

A third option could be to give patients a bigger role in the choice of their institutional care provider, which could be combined with larger payment for accommodation costs in institutions. This would give institutions greater incentives to compete for patients. Past and present reforms are paving the way for such a system, as accommodation costs are being progressively separated from care costs (Box 6). In such a system, care costs would still be mainly publicly financed, with institutions compensated on the basis of patients' needs, as is the case since 2009 under the so-called "care severity packages" (ZZPs). Institutions would be able to increase capacity to meet new demand, but thanks to new compensation rules for capital expenses, they would be at a financial risk in case of empty beds. Thus, they would have to compete on accommodation costs and quality to attract patients, leading to overall cost-efficiency gains.

The cash benefits boom has exposed targeting problems

The second challenge faced by the Dutch long-term care system is better targeting, as exposed by the recent boom in cash benefits and the fact that almost half of elderly patients receiving in-kind care are not considered frail (SCP, 2011). Both for in-kind care and cash benefits, the government's response has been to restrict eligibility (Box 6). This should be combined with improved assessment of patients' needs to improve targeting. For example, assessment procedures could be strengthened by giving regional care purchasing agencies the opportunity to object to inappropriate assessments. This could be particularly effective if combined with giving the agencies stronger incentives for cost-efficiency as mentioned above. Moreover, regional assessment disparities, which have already been reduced over the last decade, could be further addressed (Peeters and Francke, 2007). In addition, it would also be helpful to ensure that the relatively low copayments for in-kind home care are sufficiently high to encourage patients to make choices that take price and quality into consideration.

The cash benefits option attracted a new and large group of patients, leading to a spending boom (Sadiraj *et al.*, 2011). The higher uptake is not necessarily a problem since it has allowed people to escape waiting lists. However, there has been evidence of unintended use (*e.g.* grandchildren taking their grandmother to a jazz festival, home help providers who lost the bid for home help in their municipality requesting payments out of their patients' cash benefits) or even in some cases fraud (Mot, 2010, Ministry of Health, 2011e). This led the government to drastically restrict access to cash benefits from 2012 to only people eligible for institutional care – about 10% of the current 130 000 cash benefits recipients – which should save EUR 0.6-0.7 billion by 2015 (CPB, 2011b, Ministry of Health 2011f). However, this is at the cost of ending the win-win situation where patients choose relatively cheaper cash benefits (worth 75% of the cost of in-kind care) that improve their own welfare thanks to a greater choice of providers and also encourage competition across home care providers.

The root of the problem was not cash benefits themselves, but rather insufficient screening and monitoring. Thus, it would be preferable to keep a cash benefits scheme for home care but to improve screening and monitoring to avoid unintended use. One way of reducing the need for monitoring could be to provide cash benefits in the form of vouchers directly payable to professionals, like in the Nordic countries (Colombo *et al.*, 2011). To be effective, such vouchers should be designed to cover less than the full costs of care, where the implied copayment on each service purchased would give patients incentives for cost-efficient use of the vouchers.

Conclusion

The focus of the recommendations in this paper has been on enhancing cost-efficiency. Such a focus could risk impeding the excellent Dutch results in terms of equity and access to health care facilities. However, the increasing role of competition has not had a negative impact on equity so far. The already internationally low waiting times in 2000 have been further reduced since 2006 (Siciliani and Hurst, 2003; Van de Vijssel, 2011; NZa, 2012). In addition, access is assured by some of the lowest out-of-pocket payments in the OECD and the entitlement to a broad basic benefits package at an affordable premium for all citizens. Looking ahead, equity may come under pressure from peoples' unwillingness to subsidise the increasing health care consumption arising from unhealthy lifestyles and the inability of the public sector to continue to finance rapid increases in health expenditures – particularly if such consumption is considered a luxury good (Van der Star *et al.*, 2011; Hall and Jones, 2007). Either way, improved cost-efficiency will be a key factor in securing future high quality health care. A summary of recommendations in this direction is provided in Box 7.

Box 7. Recommendations to promote a more efficient and competitive health sector

Establish performance indicators and implement performance-based payment systems

- Adequate performance indicators should be developed to allow performance-based contracting between health insurers and care providers. In this area, priority should be given to improve data collection at the individual patient level and to develop a better information infrastructure.
- Health insurers should be allowed to use alternative payment systems based on financial risk-sharing (e.g. risk-adjusted capitation payments) and performance as well as to, on a limited scale, vertically integrate with providers to reduce information asymmetries.
- The risk-equalisation scheme should be further improved to reduce insurers' incentives for risk selection, particularly in view of the government's intention to terminate ex post compensations before 2015.

Facilitate entry to secure contestable provider markets

- To reduce restricted entry to the medical profession, the current capacity constraints (numerus fixus) for medical schools should be lifted. In addition, the recognition of foreign diplomas from outside Europe should be facilitated.
- For-profit hospitals should be allowed to enter the hospital market. In addition, the orderly exit of bankrupt hospitals should be secured via measures to guarantee access to essential facilities.
- The Competition Authority should publish a clear methodology for assessing horizontal and vertical mergers between hospital and health insurers, as a way to base merger assessments solely on competition considerations, including consumer welfare concerns.

Improve incentives for cost-effective choices at the demand side

- Copayments for higher income groups could be increased to encourage to make cost-effective choices, alleviate information asymmetries and as an additional budget control tool. Copayments for chronically ill people should be better designed to give them more incentives for cost-efficiency.

Long-term care sector

- Health insurers should not receive more responsibility for purchasing care until they are given proper incentives for cost-efficiency. In the longer term, the decentralisation of home care to municipalities could be completed and institutional patients should directly choose their care provider to push institutions to compete on quality to attract patients.
- Home care should be encouraged by rewarding financially municipalities for reducing institutionalisation rates, through better screening and by higher copayments for accommodation costs in institutions.
- The cash benefits scheme should be kept for home care but combined with better screening and monitoring to avoid unintended use. To this end, a system of vouchers directly payable to professionals and topped up by copayments should be envisaged.

Bibliography

- Algemene Rekenkamer (2011), *Uitgavenbeheersing in de zorg*, Tweede Kamer, vergaderjaar 2011-2012, 33060 (1-2), The Hague.
- Besseling, P., W. Elsenburg and C. van Ewijk (2011), Risicodragende uitvoering AWBZ door zorgverzekeraars verhoogt de kosten, *Me Judice*, <http://www.mejudice.nl/artikel/618/risicodragende-uitvoering-awbz-door-zorgverzekeraars-verhoogt-de-kosten>.
- Blank, J., A. Dumaij and B. van Hulst (2011), *Ziekenhuismiddelen in verband. Een empirisch onderzoek naar productiviteit en doelmatigheid in de Nederlandse ziekenhuizen 2003-2009*, IPSE Studies, Technische Universiteit, Delft.
- Boonen, L.H.H.M., S.A. van der Geest, F.T. Schut and M. Varkevisser (2010), Pharmaceutical policy in the Netherlands: from price regulation towards managed competition, in: A. Dor (ed.) *Pharmaceutical Markets and Insurance Worldwide*, Advances in Health Economics and Health Services Research, Vol. 22, Bingley: Emerald: 53-76.
- Capaciteitsorgaan (2010), *Medisch en klinisch technologische specialisten, Deelrapport 1*, Utrecht.
- Capaciteitsorgaan (2011), *Capaciteitsplan 2010 voor de medische, tandheelkundige, klinisch technologische en aanverwante (vervolg)opleidingen, revisie 1.1*, Utrecht.
- CBS (2011), *Nieuwe Nederlandse cijfers voor OESO over beloning artsen*, Centraal Bureau voor de Statistiek, published 29 June on <http://www.cbs.nl/>.
- CPB (2011a), *Centraal Economisch Plan 2011*, Centraal Planbureau, The Hague.
- CPB (2011b), *Effecten van het kabinetsvoorstel voor het pgb*, CPB Notitie, The Hague.
- Colombo, F., A. Llana-Nozal, J. Mercier and F. Tjadens (2011), *Help wanted? Providing and paying for long-term care*, OECD Health Policy Studies, OECD Publishing.
- Davis K, C. Schoen and K. Stremikis (2010), *Mirror, mirror on the wall: How the performance of the U.S. health care system compares internationally, 2010 update*, New York: The Common Wealth Fund.
- De Bakker, D.H., J.N. Struijs, C.B. Baan, J. Raams, J.-E. de Wildt, H.J.M. Vrijhoef, F.T. Schut (2012), Early results from adoption of bundled payment for diabetes care in the Netherlands show improvement in care coordination, *Health Affairs* 31(2): 426-433.
- De Graaf, R., M. Ten Have and S. van Dorsselaer (2010), De psychische gezondheid van de Nederlandse bevolking. Nemesis-2: Opzet en eerste resultaten, Trimbos-Instituut, Utrecht.
- De Klerk, M., R. Gilsing and J. Timmermans (2010), Op weg met de Wmo. Evaluatie van de Wet maatschappelijke ondersteuning 2007-09, SCP, The Hague.
- Douven, R., R. Mocking and I. Mosca (2012), "The Effect of Physician Fees and Density Differences on Regional Variation in Hospital Treatments", CPB Discussion Paper 208, CPB, The Hague.
- EIB (2011), *Monitoring integrale bekostiging zorg voor chronisch zieken. Eerste rapportage van de Evaluatiecommissie Integrale Bekostiging*, The Hague.
- Eurobarometer (2007), "Health and long-term care in the European Union", Special Eurobarometer 283.

- European Commission and the European Policy Committee (2009), Ageing Report: Economic and budgetary projections for the EU-27 Member States (2008-2060), *European Economy* No. 2/2009.
- Frank, R.G. and T.G. McGuire (2000), Economics and mental health, in: A.J. Culyer, J.P. Newhouse (eds.), *Handbook of Health Economics*, Elsevier, Amsterdam: 893-954.
- Gusdorf, L.M.A., M. Smit and B. Voorbraak (2009), *Huisartsenzorg: een eerste onderzoek, Zorgthermometer*, Vektis, Zeist.
- Hall, R.E. and C.I. Jones (2007), The value of life and the rise in health spending, *Quarterly Journal of Economics* 122(1): 39–72.
- Hasaart, F. (2011), *Incentives in the Diagnosis Treatment Combination payment system for specialist medical care. A study about behavioral responses of medical specialists and hospitals in the Netherlands*. PhD thesis. University of Maastricht, Maastricht.
- Joumard I., C. André and C. Nicq, (2010), *Health care systems: Efficiency and institutions*, *OECD Economics Department Working Papers* No. 769, OECD Publishing.
- Klazinga, N., H. Anema and G. ten Asbroek (2012), De nieuwe kleren van de keizer, *Tijdschrift voor Gezondheidswetenschappen* 90(2): 76-77.
- Loozen, E.M.H., F.T. Schut, M. Varkevisser (2011), Fusie zorgverzekeraars Achmea en De Friesland: hoezo functioneel concentratietoezicht?, *Markt en Mededinging* 14 (5).
- Mackenbach, J.P., L. Slobbe, C.W.N. Looman, A. van der Heide, J. Polder and J. Garssen (2011), ‘Sharp upturn of life expectancy in the Netherlands: effect of more health care for the elderly?’, *European Journal of Epidemiology*, DOI 10.1007/s10654-011-9633-y.
- Ministry of Health (2009), *Rijksbegroting 2010. XVI Volksgezondheid, Welzijn en Sport*, Tweede Kamer, vergaderjaar 2009-2010, 32123 XVI (1-2), The Hague.
- Ministry of Health (2010), *Rijksbegroting 2011. XVI Volksgezondheid, Welzijn en Sport*, Tweede Kamer, vergaderjaar 2010-2011, 32500 XVI (1-2), The Hague.
- Ministry of Health (2011a), *Zorg die loont*, Tweede Kamer, vergaderjaar 2010-2011, 32620 (6), March, The Hague.
- Ministry of Health (2011b), *Rijksbegroting 2012. XVI Volksgezondheid, Welzijn en Sport*, Tweede Kamer, vergaderjaar 2011-2012, 33000 XVI (1-2), The Hague.
- Ministry of Health (2011c), *Fusies in de zorgsector en opsplitsingsbevoegdheid IGZ*, MC-U-3066411, June, The Hague.
- Ministry of Health (2011d), *Uitvoering van drie aangenomen moties over fusies in de zorgsector*, Tweede Kamer, vergaderjaar 2011-2012, 32620 (31), November, The Hague.
- Ministry of Health (2011e), *Programmabrief langdurige zorg*, DLZ/KZ-U-3067294, June, The Hague.
- Ministry of Health (2011f), *Voortgangsrapportage Hervorming langdurige zorg*, Z/M-3089172, October, The Hague.
- Mosca, I., M. Pomp and V. Shestalova (2007), Market share and price in Dutch home care: market power or quality?, CPB Discussion Paper No. 95, The Hague.

- Mot, E. (2010), *The Dutch system of long-term care*, CPB Document N°. 204, The Hague.
- Newhouse, J.P. and the Insurance Experiment Group (1993), *Free for all? Lessons from the RAND Health Insurance Experiment*, Harvard University Press, Cambridge, Massachusetts.
- NZa (2009), *Huisartsenzorg 2008. Analyse van het nieuwe bekostigingssysteem en de marktwerking in de huisartsenzorg*, Nederlandse Zorgautoriteit, Utrecht.
- NZa (2010a), *Marktimperfecties in de medisch specialistische zorg*, Visiedocument, Nederlandse Zorgautoriteit, Utrecht.
- NZa (2010b), *Monitor Extramurale farmacie 2010*, Nederlandse Zorgautoriteit, Utrecht.
- NZa (2011a), *Marktscan Zorgverzekeringsmarkt. Weergave van de markt 2007-2011*, Nederlandse Zorgautoriteit, Utrecht.
- NZa (2011b), *Marktscan Medisch specialistische zorg. Weergave van de markt 2006-2010*, Nederlandse Zorgautoriteit, Utrecht.
- NZa (2011c), *Monitor curatieve GGZ 2010. Een sector in ontwikkeling*, Nederlandse Zorgautoriteit, Utrecht.
- NZa, 2012, *Marktscan Medisch specialistische zorg. Weergave van de markt 2006-2011*, Nederlandse Zorgautoriteit, Utrecht.
- OECD (2009), *Health at a Glance 2009*, OECD Publishing.
- OECD (2010a), *Health at a Glance: Europe 2010*, OECD Publishing.
- OECD (2010b), *Improving value in health care: Measuring quality*, OECD Health Policy Studies, OECD Publishing.
- Peeters, J. and A. Francke (2007): "Indicatiestelling voor AWBZ-zorg, sector Verpleging, Verzorging en Thuiszorg", NIVEL.
- Pommer, E. (2012), *Verzorging en verpleging*, SCP, The Hague.
- Sadiraj, K., D. Oudijk, H. van Kempen and J. Stevens (2011), *De opmars van het pgb*, SCP-publication 2011-17, The Hague.
- Schut F.T. and B. Van den Berg (2010), *Sustainability of Long-Term Care Financing in The Netherlands*, *Social Policy & Administration*, 44 (4); 411-435.
- Schut, F.T. and W.P.M.M. van de Ven (2010), *Uitvoering AWBZ door zorgverzekeraars onverstandig*, *Economisch Statistische Berichten* 95 (4591); 486-489.
- SCP (2011), *Frail older persons in the Netherlands*, The Netherlands Institute for Social Research (*Sociaal en Cultureel Planbureau*, SCP), The Hague.
- Tweede Kamer (2011), *Invoering Diagnose Behandeling Combinaties (DBC's)*, vergaderjaar 2010-11, 29248 (170).
- Van Beek, E., L. Boon and E.-J. Vlieger (2009), *Vorstudie naar praktijkvariatie in Nederland*, Plexus, Breukelen.

- Van der Star S.M. and B. **Van den Berg (2011)**, Individual responsibility and health-risk behaviour: A contingent valuation study from the ex ante societal perspective. **Health Policy** 101.
- Van der Torre, A., S. Jansen and E. Pommer (2011), Advies over het Wmo-budget huishoudelijke hulp voor 2012, CP, The Hague.
- Van de Vijzel, A.R., P.M. Engelfriet and G.P. Westert (2011), 'Rendering hospital budgets volume based and open ended to reduce waiting lists: does it work?', *Health Policy*, 100.
- Van de Ven, W.P.M.M., F.T. Schut, H.E.G.M. Hermans, J.D. de Jong, M. van der Maat, R. Coppen, P.P. Groenewegen and R.D. Friele (2009), *Evaluatie Zorgverzekeringswet en Wet op de Zorgtoeslag*, Programma evaluatie wetgeving: deel 27, ZonMw, The Hague.
- Varkevisser, M., F.T. Schut (2008), NMa moet strenger zijn bij toetsing ziekenhuisfusies, *Economisch Statistische Berichten* 93 (4532).
- Varkevisser, M., F.T. Schut (2010), Fusietoetsing in de zorg, *Economisch Statistische Berichten* 95 (4576).
- Varkevisser, M. and F.T. Schut (2012), The impact of geographic market definition on the stringency of hospital merger control in Germany and the Netherlands, *Health Economics, Policy and Law*, doi:10.1017/S1744133112000011.
- Vektis (2009), *Zorgverzekeraars en zorgfinanciering. Jaarcijfers 2009*, Vektis, Zeist.
- Vektis (2010), *Zorgverzekeraars en zorgfinanciering. Jaarcijfers 2010*, Vektis, Zeist.
- Vektis (2011), *Zorgverzekeraars en zorgfinanciering. Jaarcijfers 2011*, Vektis, Zeist.
- Vektis and Plexus (2011), *Rapportage indicatoren indicatiestelling (praktijkvariatie)*, Zeist/Breukelen.
- Werkgroep Curatieve zorg (2010), *Curatieve zorg. Rapport brede heroverwegingen 11*, Ministry of Finance, The Hague.
- Westert, GP, MJ Van den Berg, SLN Zwakhals, JD de Jong and H. Verkleij (2010), *Dutch Health Care Performance Report 2010*, Bilthoven: RIVM.
- WOR (2011), *Advies aan de minister van VWS over de vormgeving van de risicoverevening 2012*, Werkgroep Ontwikkeling Risicoverevening, WOR 580, September, The Hague.

WORKING PAPERS

The full series of Economics Department Working Papers can be consulted at www.oecd.org/eco/workingpapers/

1009. *Enhancing the inclusiveness of the labour market in Belgium.*
(January 2013) by Jens Høj
1008. *Reducing poverty in Estonia through activation and better targeting*
(December 2012) by Sarah Flèche and Artur Radziwill
1007. *Matching skills and jobs in Estonia*
(December 2012) by Lilas Demmou
1006. *Debt and macroeconomic stability: An overview of the literature and some empirics*
(December 2012) by Douglas Sutherland and Peter Hoeller
1005. *Debt and macroeconomic stability: Debt and the business cycle*
(December 2012) by Volker Ziemann
1004. *Debt and macroeconomic stability: Case studies*
(December 2012) by Rossana Merola
1003. *Debt and macroeconomic stability*
(December 2012) by Douglas Sutherland, Peter Hoeller, Rossana Merola and Volker Ziemann
1002. *Reducing greenhouse gas emissions in a cost effective way in Switzerland.*
(December 2012) by Anita Wölfl and Patrizio Sicari
1001. *Strengthening innovation in the United States*
(November 2012) by David Carey, Christopher Hill and Brian Kahin
1000. *Long-term growth scenarios*
(forthcoming) by Åsa Johansson, Yvan Guillemette, Fabrice Murtin, David Turner, Giuseppe Nicoletti, Christine de la Maisonneuve, Philip Bagnoli, Guillaume Bousquet and Francesca Spinelli
999. *Selected aspects of household savings in Germany – evidence from micro-data*
(November 2012) by Christina Kolerus, Isabell Koske and Felix Hüfner
998. *Improving the tax system in Indonesia*
(November 2012) by Jens Arnold
997. *Unleashing business innovation in Canada*
(November 2012) by Alexandra Bibbee
996. *Public policy and resource allocation: evidence from firms in OECD countries*
(October 2012) by Dan Andrews and Federico Cingano
995. *Promoting SME development in Indonesia*
(October 2012) by Annabelle Mourougane

994. *Portugal: Rebalancing the economy and returning to growth through job creation and better capital allocation.*
(October 2012) by Álvaro Pina and Ildeberta Abreu
993. *Public debt, economic growth and nonlinear effects: Myth or reality?*
(October 2012) by Balázs Égert
992. *Choosing the pace of fiscal consolidation*
(September 2012) by Lukasz Rawdanowicz
991. *Tertiary education developing skills for innovation and long-term growth in Canada*
(September 2012) by Calista Cheung, Yvan Guillemette and Shahrazad Mobasher-Fard
990. *Trade and product market policies in upstream sectors and productivity in downstream sectors: firm-level evidence from China*
(September 2012) by Maria Bas and Orsetta Causa
989. *Intangible assets, resource allocation and growth: a framework for analysis*
(September 2012) by Dan Andrews and Alain de Serres
988. *Current account benchmarks for Turkey*
(September 2012) by Oliver Röhn
987. *Structural reforms to boost Turkey's long-term growth*
(September 2012) by Rauf Gönenç, Oliver Röhn, Vincent Koen and Şeref Saygili
986. *Tackling Turkey's external and domestic macroeconomic imbalances*
(September 2012) by Oliver Röhn, Rauf Gönenç, Vincent Koen and Ramazan Karaşahin
985. *Portugal: Solid foundations for a sustainable fiscal consolidation*
(September 2012) by David Haugh and Stéphane Sorbe
984. *Portugal: Assessing the risks around the speed of fiscal consolidation in an uncertain environment*
(September 2012) by Stéphane Sorbe
983. *The German labour market: preparing for the future*
(September 2012) by Felix Hüfner and Caroline Klein
982. *Climate change policies in Germany: make ambition pay*
(September 2012) by Caroline Klein
981. *Restarting the growth engine in Finland*
(September 2012) by Henrik Braconier
980. *Import Competition, Domestic Regulation and Firm-Level Productivity Growth in the OECD*
(September 2012) by Sarra Ben Yahmed and Sean Dougherty
979. *Non-Parametric Stochastic Simulations to Investigate Uncertainty around the OECD Indicator Model Forecasts*
(August 2012) by Elena Rusticelli