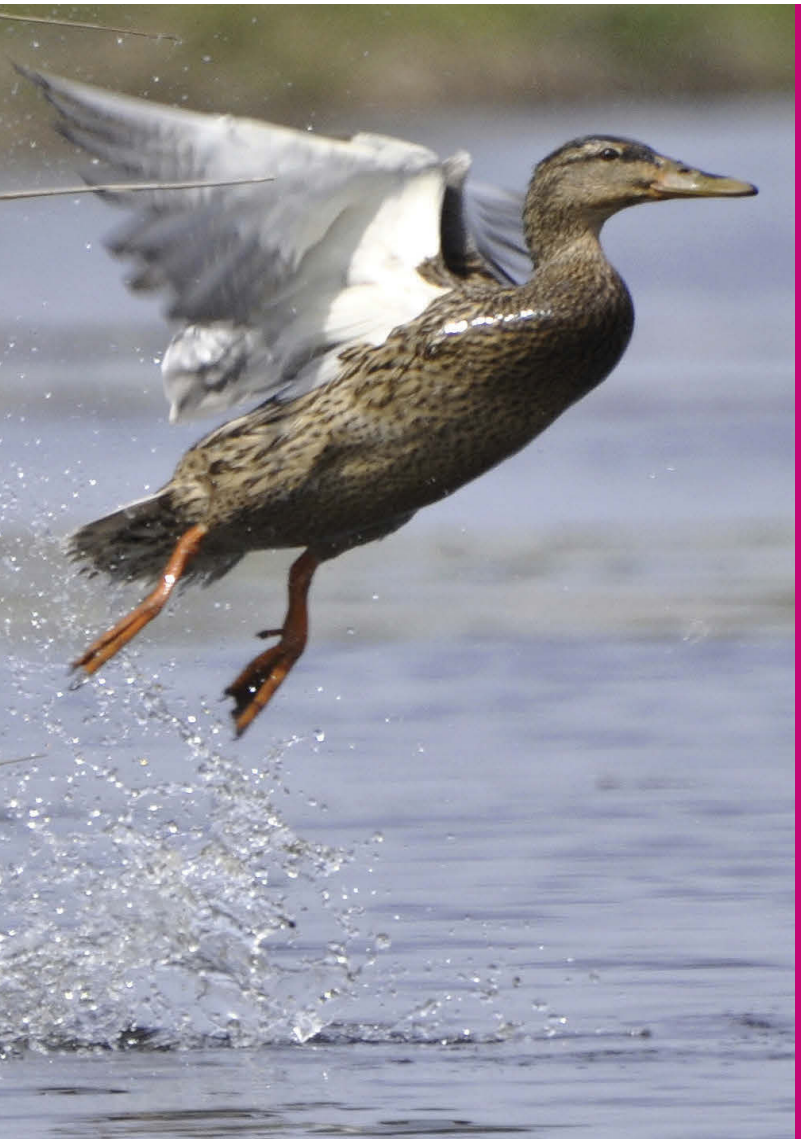
CPB Netherlands Bureau for Economic Policy Analysis

Uncertain supply | *Fragile demand*



# Roads to recovery

## Chapter 8

## *Three roads to recovery*

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# 8 Three roads to recovery

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- The Dutch economy is resilient, but the recovery of aggregate demand will take time.
- Depending on strong or weak supply, over the next decade the Dutch economy may grow by 1½% (*Moderate Recovery*) to 2½% (*Accelerated Recovery*) per year.
- When substantial demand risks materialise the economy will not recover in the coming decade and government debt deteriorates (*Delayed Recovery*).

## 8.1 Introduction

The Great Recession has hit the economy worldwide. In Europe this has led to stagnated growth; in the Netherlands, real GDP is still below its 2007 level. Now it is time to look ahead.

The future will be shaped by past events, current imbalances and future uncertainty. Chapters two through seven of this book investigate the past, trying to understand whether the changes that have occurred, such as the loss of GDP, are likely to be permanent or temporary. We also identify imbalances, such as unemployment and negative net assets, and question whether and how they will be resolved. Finally, uncertainty about the future is inherent in any scenario study, facing us with the challenge of identifying the key uncertainties.

This chapter aims to visualise the future of economic growth in the Netherlands and abroad. We develop three scenarios around the questions of whether and how the economy will recover. In one scenario the answer to the 'whether' question is no, at least not within a period of ten years. In two other scenarios, the economy does recover from the crisis, but the speed of economic growth differs markedly. The scenarios are stories with numbers. We tell stories about how agents behave, markets function and institutions are being reformed. And we provide numbers on economic growth, unemployment, inflation and government budgets. Our aim, of course, is to present scenarios in which the stories and projections are consistent and relevant.

We present scenarios for a ten-year period, from 2014 to 2023. Given the intensity of the crisis, this period should be long enough for economic recovery to occur, at least in normal times. This period should also be short enough to abstract from long-term growth perspectives and demographic changes.[64] Our starting point is 2014, which seems to be in the latter days of the crisis. For practical purposes, we follow the March projection for 2014

[64] The Moderate Recovery scenario is input for the CPB ageing study (forthcoming in 2014), which takes a long-term intergenerational perspective. Moreover, a project is in progress on long-term demographic and economic scenarios as part of a scenario study on spatial issues, infrastructure, mobility and energy by CPB and PBL Netherlands Environmental Assessment Agency. The results of this project are expected in 2015.

and 2015, as presented in CPB (2014).[65] These are years featuring modest growth, with the imbalances in the economy as yet unsolved. From 2016 onward, we differentiate in three scenarios.[66]

## 8.2 Characterisation of the scenarios

There are a thousand and one ways in which the economy may recover— or not— from the Great Recession. Keenly aware of this, we limit ourselves to three stories capturing the two key uncertainties for the Dutch economy: the recovery of the production side of the economy may be either weaker or stronger, and aggregate demand may be sufficient or not to meet supply.

Figure 8.1 represents the construction of the three scenarios. Economic growth is first and foremost determined by supply, with demand adjusting. Supply may be strong or weak, depending on technological progress and structural reforms, among other things. If supply is strong, many goods and services are being produced, income is high and demand will be strong as well. The same holds true for the interaction between weak supply and weak demand.

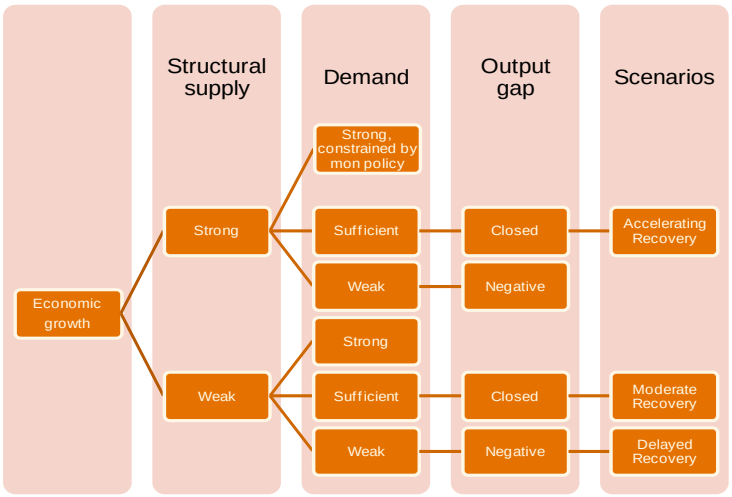
The second issue is how the economy recovers from the crisis. After about six years of weak economic growth, there is slack in the economy, mainly because workers are unemployed or discouraged. In economic terms, there is a gap between actual production and what might be produced if all available resources were used in the production process: the output gap is negative. The slack in the economy provides some room for catch-up growth or cyclical recovery, where unemployed workers are being hired and non-participants successfully enter the labour market. If supply and demand are strong, this catch-up growth is easy to achieve, which determines the *Accelerating Recovery* scenario. If demand and supply are weak, then cyclical recovery is still feasible but more fragile; this determines the *Moderate Recovery* scenario.

Lack of demand may hamper the recovery of the economy, abundant demand may induce overshooting. If households are saving rather than consuming, if firms delay investments and if governments cut expenditures or raise taxes, demand may fall short of supply and inflation remains at a low rate. Given the zero lower bound, the European Central Bank has a difficult task in realising an inflation rate of close to 2%. Given the limited economic growth, governments find it difficult to reduce the debt ratio. This *Delayed Recovery* scenario is at the heart of our investigation of the medium-term downward implications of the Great Recession. Alternatively, demand may surge, resulting in an overheated economy with low unemployment and high inflation. Given the current economic situation and the focus of our

[65] The June projection confirms the March projection for the main economic indicators.
[66] The main economic and budgetary indicators are presented either in terms of average growth (i.e. GDP and consumption) or as a particular level or ratio in 2023 (i.e. unemployment rate, budget balance).

study, we abstract from an overheating scenario. Moreover, monetary policy may effectively cope with an overshooting business cycle.

**Figure 8.1** **Basic structure of the three scenarios**




The key uncertainties on the supply side of the economy include both crisis-related and 'universal' uncertainties. Related to the crisis is uncertainty about the financial sector and the question of whether or not credit supply will impose a drag on investment growth. On the labour market, where unemployment is high and many workers are discouraged, the issue is whether the labour market returns to (pre-crisis) equilibrium or whether part of the working-age population will be more or less permanently (at least in the next decade) separated from the labour market. Of a more universal nature is uncertainty about technological progress and labour force participation. Finally, uncertainty about structural reforms in Europe matters. Reforms influence the extent to which countries catch up to the technological frontier.

Demand depends on supply, but also has its own dynamics. Demand depends on supply because high productivity and employment growth raise wage income and stimulate consumption. Also, a larger stock of capital requires additional investment and stronger supply allows for additional government spending. The dynamics particular to demand were illustrated in Chapters 3 and 6 of this book. Currently, 30% of homeowners have underwater mortgages. If housing prices hardly recover and households choose to deleverage, then consumption growth will be weak and demand may fall short of supply. Similarly, governments may choose to extend the period of consolidation and improve their budget, or may choose to increase public investment, and so forth.

As shown in Chapter 4, the available evidence points to a return of the productivity growth rate to pre-crisis growth. The uncertainty around this pre-crisis trend is captured by the *Accelerating Recovery* and *Moderate Recovery* scenarios, which respectively represent above-average and below-average potential growth.

If supply is abundant (as in the *Accelerating Recovery* scenario), demand follows suit and most likely meets this high supply. Of course, demand may overshoot, which results in an overheated economy with strong inflationary pressure.

Weak supply reduces demand, but in a different way. The first difference is that the uncertainty about demand is higher if supply is weak than if supply is abundant. In particular, the extent and impact of deleveraging by households is much more uncertain with moderate income growth and limited inflation than in the *Accelerating Recovery* scenario, where deleveraging is hardly an issue. The second difference is that downward risks dominate if supply is weak. In addition to weak consumption due to deleveraging, investment may be hampered by limited credit growth. Low growth of demand may slow down inflation, which intensifies the debt burden for consumers, firms and governments. This downward uncertainty about demand conditional on weak supply is represented by the *Delayed Recovery* scenario.

## Potential growth

This textbox gives the numerical elaboration of the supply side of the Dutch economy, also known as the growth potential of the economy. The starting point is the identity that economic growth (i.e. growth of gross domestic product) can be decomposed in growth of employment and labour productivity. To determine potential output growth, we have to assess the potential growth of employment and productivity (a)

Potential growth of employment first of all depends on population growth, in particular, the growth of the working-age population. Due to the ageing of the population, this growth has come to a halt. We take into account, however, that net migration is uncertain and allow it to be a bit higher in the strong-supply scenario than in the weak-supply scenarios. Secondly, the increase in labour-force participation gradually slows down, but the speed at which this happens is uncertain. The third determinant of potential employment has to do with the working hours of, in particular, part-time workers. We assume that in the *Accelerating Recovery* scenario part-time workers are triggered to work more hours. All in all, potential employment growth varies between 0% in *Delayed Recovery* and *Moderate Recovery* scenarios but amounts to ¼% in the *Accelerating Recovery* scenario.

Chapter 4 provides evidence that after a financial crisis productivity growth likely resumes its pre-crisis rate. The table shows that in the periods before the Great Recession, productivity growth amounted to 1.8% in 1990-1999 and 1.2% in 2000-2007. For the coming decade, we project productivity growth around a mean of 1.4%, with 1% in the weak-supply scenarios and 1¾% with strong supply. Potential growth therefore varies between 1% and 2%. Chapter 4 also highlights the loss of potential output of about 6% in the crisis-period. This is reflected in the low productivity growth in the period 2008-2015, where over a period of eight years, annual growth is about ¾% lower. The textbox “Output gap and actual growth” shows the implications for actual growth.

**Potential growth, 1990-2023**

| | 1990-1999 | 2000-2007 | 2008-2015 | 2016-2023 | | |
|---|---|---|---|---|---|---|
| | | | | Accelerating recovery | Moderate recovery | Delayed recovery |
| Potential growth | 3.1 | 2.0 | 1.1 | 2 | 1 | 1 |
| Employment | 1.3 | 0.8 | 0.6 | ¼ | 0 | 0 |
| Productivity | 1.8 | 1.2 | 0.5 | 1¾ | 1 | 1 |

(a) Further information about potential growth is provided in Kranendonk and Van der Horst (2014).

In the following, we present three scenarios for the development for the economy in the next decade. In the *Accelerating Recovery* scenario, labour productivity grows faster than before the crisis, labour force participation improves and both domestic and foreign demand are abundant. So, the production side recovers relatively strongly, and demand meets supply. In our second scenario, *Moderate Recovery,* demand again meets supply, but both grow moderately. Labour productivity recovers from the very poor growth rates within the crisis, but does not return to pre-crisis growth. The labour market returns to equilibrium (unemployment falls and discouraged workers return to the labour market), but does not grow structurally. The third scenario of *Delayed Recovery* explores the key uncertainties about demand, where both domestic and international demand may be too weak to meet supply. Households continue to deleverage and cut down their expenditures; governments keep struggling with a poor balance position and continue their consolidation policies. Even in ten years from now, the economy operates below potential, with deflation lurking just around the corner.

## 8.3 Recovery in two scenarios

**Table 8.1 Main economic indicators for the Netherlands, 2000-2023**

| | 2000/2007 | 2008/2015 | Accelerating recovery | Moderate recovery |
|---|---|---|---|---|
| | | | 2016/2023 | 2016/2023 |
| | annual change, % | | | |
| Gross domestic product (GDP, economic growth) | 2.2 | 0.1 | 2 1/2 | 1 1/2 |
| Consumption households | 1.2 | -0.6 | 1 3/4 | 1 |
| Consumption general government | 3.3 | 0.9 | 1 3/4 | 1 |
| Capital formation (including changes in stock) | 1.2 | -1.4 | 4 | 2 |
| Exports of goods and services | 5.7 | 2.6 | 5 1/2 | 3 3/4 |
| Imports of goods and services | 5.3 | 2.4 | 5 1/2 | 3 3/4 |
| Employment (working hours) | 0.6 | -0.2 | 3/4 | 3/4 |
| Labour force (persons) | 1.0 | 0.4 | 1/2 | 1/4 |
| Labour productivity | 1.7 | 0.4 | 1 3/4 | 1 |
| Contractual wages market sector | 2.5 | 1.9 | 3 1/4 | 2 1/4 |
| National consumer price index (CPI) | 2.3 | 1.9 | 2 1/2 | 2 |
| | level in final year, % | | | |
| Unemployment rate (% of the labour force) | 3.6 | 7.1 | 4 1/4 | 4 1/4 |
| Labour share in enterprise income | 77.4 | 80.4 | 79 1/2 | 79 1/2 |
| Private savings (% of disposable household income) | -1.1 | -0.5 | -1 1/4 | 0 |
| Current-account balance (% GDP) | 8.4 | 9.7 | 12 1/2 | 12 3/4 |
| EMU balance (% GDP) | 0.2 | -2.1 | 0.5 | -0.4 |
| EMU debt (% GDP) | 45 | 75 | 52 | 63 |

The first signs that economic growth is gaining momentum in 2014 have restored hope that the economy has turned a corner and the worst part of the crisis is over. The *Accelerating Recovery* and *Moderate Recovery* scenarios intend to explore that line of thought. In both scenarios, demand and supply move in tandem and current imbalances are being resolved. Both scenarios differ in the structural growth rate of labour productivity and employment.

Table 8.1 presents the main economic indicators for the Dutch economy in both scenarios. For practical reasons we take our starting point for the scenarios in our published projection for 2014-2015 (see CPB, 2014). The scenarios deviate from 2016 onwards.

### 8.3.1 Accelerating Recovery

Virtuous circles appear when growth accelerates and inflation picks up. Growth supports growth by reducing unemployment and improving private and public balances. Higher inflation solves part of the debt problem by inflating away high debts of consumers and governments, and restoring household wealth due to higher housing prices.

*Accelerating Recovery* features rather strong growth drivers in three dimensions: technology, financial markets and international trade. On the technological frontier (the US), new ICT applications in services and health care start raising productivity in sectors that hitherto largely lacked productivity growth. In addition, Europe partly catches up to the frontier, supported by two types of structural reform. Firstly, reforms of product-market institutions in southern European countries gain strength. In Italy, for instance, various reforms that were approved in Parliament after the crisis are implemented effectively. Reorganization of the judicial system speeds up civil action and lowers administrative barriers. These reforms enable Italy, France, Portugal, Spain and Greece to partly catch up with other European countries; see Chapter 7. Secondly, also northern European countries benefit from expansion of the internal market for services in Europe. The European Commission enacts substantial parts of the services directive, supplemented by adoption of the Transatlantic Trade and Investment Partnership (TTIP) agreement. Individual member states need to reform their services markets to comply with the TTIP treaty. Through the expansion of the internal market for services, Europe benefits from the organisational and technological improvements that enabled productivity to expand in retail and other services sectors in the US.

Financial markets in *Accelerating Recovery* turn from a drag into a stimulus on the economy. In the US, the financial sector recuperates rather quickly, due to the effective recapitalisation of banking early in the crisis and to bankruptcy rules that allow for quick settlement of obligations. Banks ease credit conditions, which stimulates investment and consumption. Risk-taking becomes something to be proud of again, and financial innovation thrives. Some people even worry whether the fast recovery may contain the seeds of a new financial crisis. In Europe, the Asset Quality Review and stress tests turn out favourably, and confidence in the financial market is restored.

As another growth driver, international trade flourishes. The conclusion of the TTIP agreement illustrates that mutual trust largely characterizes international relations. In the

major world regions, growth and trade reinforce one another. The US economy gains from technological progress and the recuperation of financial markets. This boosts imports from Asia and Europe. Also in China growth remains strong. Neither in the financial sector nor with respect to social or environmental issues do substantial tensions arise in China.

In Europe, GDP growth averages 2¼% in the *Accelerating Recovery* scenario (see Table 8.2). Labour markets benefit from the solid recovery. In the wake of accelerating demand for their products, firms expand investments and create new employment opportunities. In the course of a number of years unemployment falls in many countries to its equilibrium level, determined by national labour market institutions. Moreover, several southern European countries succeed in reforming their labour markets, which lowers equilibrium unemployment rates. Figure 7.4 shows that, according to the OECD, in 2013 equilibrium unemployment rates are very high in a number of countries. Spain, for instance, has a dual labour market, because institutions highly protect insiders at the cost of employment opportunities for outsiders, who are mainly young. Reforms of labour market institutions enable outsiders to gain access to the labour market. Similar reforms in Greece, Portugal, Spain, Italy and France reduce the equilibrium rate of unemployment, bringing these rates closer to the European average. The textbox 'Reforms, recovery and repair in Europe' in Section 8.4 illustrates the contribution of reforms in Europe to growth in the *Accelerating Recovery* scenario.

In the *Accelerating Recovery* scenario, inflationary pressure accumulates. Raw material prices surge, because growth in the main world regions raises demand for raw materials. Aggregate demand flourishes and may surpass aggregate supply. This creates inflationary pressure, with the risk of creating new bubbles. As a consequence, monetary policy gradually shifts from expansionary to slightly contractionary. Stepwise, the FED diminishes quantitative easing and raises the federal funds rate to keep inflation in check. In Europe, the ECB also raises its refinancing interest rate so as to steer inflation to a value close to 2%.

Accelerating growth and inflation generate virtuous circles. The first occurs when unemployment falls and discouraged workers return to the labour market, income increases and provides opportunities to raise consumption or reduce private debts. Less need for social security and higher revenues from taxation improve government balances in the second virtuous circle. The third circle sees inflation diminishing the private and public debt overhang. Finally, in the fourth virtuous circle, GDP growth reduces the ratio of the public debt to GDP (the so-called denominator effect).

All in all, the European economy turns out rather healthy in the *Accelerating Recovery* scenario. GDP growth averages 2¼% over the next decade and relevant world trade picks up to 6¾% annually. Unemployment falls, debt ratios are on a steady downward trajectory and deflation is far away.

**Table 8.2 Key statistics for the world economy in three scenarios, 2016-2023**

| | Accelerating Recovery | Moderate Recovery | Delayed Recovery |
|---|---|---|---|
| Gross domestic product, euro area | 2¼ | 1½ | 1 |
| Gross domestic product, United States | 3¼ | 3 | 3 |
| World trade, weighted | 6¾ | 5 | 3 |
| | | | |
| Inflation, euro area (ultimo) | 2¼ | 1¾ | 1 |
| Interest rate, euro area (ultimo) | 4¾ | 4 | 2¼ |

Source: Own calculations with NIGEM, see Veenendaal (2014).

## The Netherlands

The Dutch economy is highly integrated in global supply chains and benefits from the worldwide recovery. Productivity growth not only returns to pre-crisis growth rates, but firms exploit new investment opportunities, benefit from ICT applications and are able to catch up to the productivity frontier. Firms expand their production capacity by investing intensively and demanding more labour. New graduates, unemployed workers (including the elderly and long-term unemployed) and even foreign employees find their way to the Dutch labour market. Demand flourishes, both internationally and from domestic households and firms. This facilitates the return of the unemployment rate to the equilibrium rate and stimulates discouraged workers to re-enter the labour market. With a productivity growth of 1¾% and employment growth of ¾%, GDP grows at 2½% in the coming decade, similar to growth rates of the late eighties and the nineties of the twentieth century and similar to growth in the euro area. Relative to the core economies the Netherlands benefit more from catch-up growth, but the southern economies have higher underlying growth in this scenario reaping the fruits of structural reforms.

Employment and productivity growth increase households' disposable income and allow for a surge of private consumption. In recent years, negative wealth effects put a drag on consumption, but deleveraging comes to an end in the *Accelerating Recovery* scenario. A key element in the limited need for deleveraging is the house price growth of 4% annually (see Chapter 3), which improves housing wealth and significantly reduces the number of underwater mortgages.

Investment, public expenditure and exports also contribute to total demand. Following the worldwide boost in productivity growth and the catch-up growth in the European Union, total factor productivity growth improves in the Netherlands as well. The implementation of new technologies requires the development of new capital stock, and replacement of the existing capital stock. In addition, the recovery of the housing market not only raises housing prices but also stimulates residential investment. Health care expenditures increase both in line with economic growth and due to population ageing. All other public expenditures keep pace with potential GDP growth. Finally, exports benefit from both worldwide demand and improved domestic production capacity.

The surplus on the current account further expands as a result of two counteracting effects. On the one hand, economic growth is high, both in the Netherlands and abroad. This

stimulates both exports and imports and multiplies the existing current account surplus. On the other hand, non-financial firms identify potential opportunities, expand production capacity and reduce their savings surplus. The option value of delaying investment and retaining earnings declines as attractive investment opportunities come along. Moreover, domestic households and firms raise their expenditures, not only domestically but also abroad, which reduces the trade surplus. Finally, Southern European countries regain some of their lost competitiveness, because they effectively implement reforms. Of course, the Netherlands remains a highly competitive and fiscally attractive country for business savings. This implies that the current account surplus remains high in the next ten years. On the other hand, the *Accelerating Recovery* scenario heralds in abundant opportunities for firms, due to technological progress and strong economic growth, to expand their capital stock.

Following economic growth, the labour market quickly recovers from the crisis (see textbox on 'output gap and economic growth'). Firms expand production and search for workers. Unemployment returns to the equilibrium rate of about 4¼%, but does not overshoot. After years of moderate wage inflation, firms are willing to raise wages and sign permanent contracts in the competition for scarce labour. Discouraged workers are triggered to re-enter the labour market and temporary workers are asked to work more hours. Despite the ageing of the population, employment increases by ¾% annually.

Inflation returns to pre-crisis rates, both internationally and domestically. Currently, the output gap is negative, the economy produces below potential and firms expand their production rather than raising prices. After a few years of strong demand and a declining unemployment rate, firms start raising prices and workers and labour unions demand higher wages. In the *Accelerating Recovery* scenario, we assume that monetary policy is able to control wage and price inflation, with inflation close to 2% in the EU on average and with real wage growth in line with productivity growth.

Overheating is the key risk in the *Accelerating Recovery* scenario. In the upward dynamics of asset and housing prices, bubbles may develop. The optimism about consumption and investment opportunities may lead to overheating, and the reduction in government deficits may trigger pro-cyclical public expenditures. These risks can be tackled by restrictive monetary policy and countercyclical budgetary policy.

### 8.3.2 Moderate Recovery

Where virtuous cycles accelerate recovery, weak opportunities and sluggish responses lead to moderate recovery in Europe and the Netherlands. Weak opportunities include sluggish technological progress and a stagnating internal market. In response, both exports and consumption lack the stimulus needed to return to pre-crisis growth rates, and labour markets recover only gradually. Lack of structural reforms, particularly in Southern European countries, aggravates existing imbalances in the European Union.

Productivity growth slows down compared to the *Accelerating Recovery* scenario for several reasons in this scenario (see also Chapter 4). TFP growth is weak, mainly because ICT loses

momentum as driver of technology growth. Investments are weak, due to high uncertainty and moderate expectations of future output growth; disruptions of the supply chain in recent years force the remaining producing firms to invest in the establishment of a productive relationship with new firms, which limits the development of new applications. In sum, the underlying technology growth is sluggish, with a structural productivity growth of 1% annually (see textbox on potential growth).

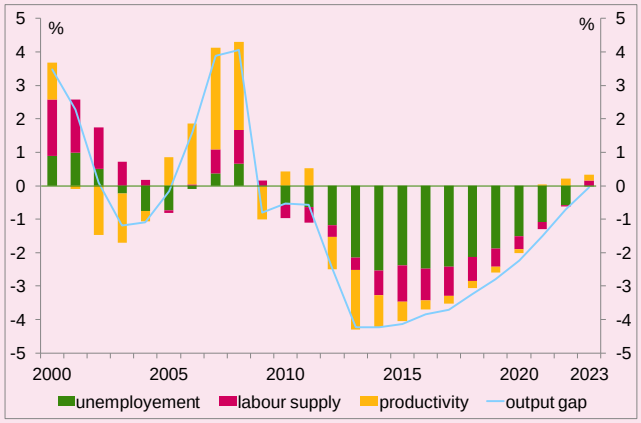
## Output gap and actual growth

There is slack in the economy, which may in the coming years be employed in the production process and boost economic growth. The figure below shows the evolution of the output gap in recent years. It highlights that we started from a positive gap in 2008 of about 4%, which has turned into a negative gap of similar size in 2013-2015.

The figure decomposes the gap in contributions from labour and productivity. Currently, the productivity gap is limited, at least if the recovery in 2014 of labour productivity as projected in CPB (2014) will be realised. The slack in the economy is concentrated on the labour market; see chapter 5. The actual unemployment rate of 7¼% is 3%-points higher than the equilibrium rate of 4¼%-points in 2023 and labour supply is 1% below its structural level; see chapter 5. Once economic growth picks up and aggregate demand increases, firms expand their labour force, unemployed workers more easily find a job and people who have temporarily left the labour market or have postponed entry may become employed.

The output gap closes in the period 2015-2023 in the *Accelerating* and *Moderate Recovery* scenarios. In both scenarios, this allows for nearly ½% annual growth, in addition to potential growth. However, capacity remains underutilised if the recovery is delayed due to lack of demand.

**Output gap in *Moderate Recovery*, % GDP, 2000-2023**




Slow technological progress manifests itself on a global scale, but growth differs markedly with the US and Asia doing relatively well and Europe staying behind. Currently recovery in the US already has progressed faster than in Europe. For instance, households in the US have offset almost 60% of the increase of their debts that took place over 2000-2007 (see Chapter 7). In the first part of the scenario period the US largely completes its recovery and in the second part it benefits from an economy that operates at full capacity. Analogously to the *Accelerating Recovery* scenario Asia remains strong. China manages to steer away from social and financial obstacles and successfully continues its transition towards performance of higher skilled tasks. Hence, although constrained by weak productivity growth, the US and Chinese economies benefit from recovery and transition. As a consequence of the relatively

strong growth in the US and China the centre of gravity of world trade shifts further towards the Pacific.

In Europe, the development of the internal market stagnates and does not contribute to growth in this scenario. The Services Directive of 2009 will not be replaced by more ambitious plans (see Chapter 7). With a shift in trade orientation towards the Pacific, interests of the US in the Trans-Atlantic Trade and Investment Pact (TTIP) dwindle. Lengthy negotiations finally lead to a weak version of TTIP, with limited impact on economic growth. As a third example, the banking union will be implemented in Europe but the AQR and stress test and their implications are not boldly dealt with. This only marginally restores confidence in the financial sector and therefore doesn't contribute to growth either.

The North-South divide in Europe will be sustained by weak economic growth in southern member states and export-led growth in Germany and the Netherlands. An important reason for weak growth in southern member states is the lack of structural reforms in reducing regulatory barriers in markets for goods and services; see Chapter 7. In contrast, German exports to the US and Asia flourish. Relatively strong growth fuels demand for German high-quality machinery and cars. In its wake, exports from the Netherlands to Germany thrive. On the labour market, Europe will be able to redeploy its unused potential, but differences in structural unemployment rates between north and south persist in the absence of structural labour-market reforms.

### Netherlands

Also in the Netherlands do weak opportunities and sluggish responses lead to moderate recovery. The weak opportunities include moderate technological progress and world trade and sustained negative debt positions. In response, firms invest moderately and hire workers temporarily, households continue to deleverage and governments limit expenditures in line with moderate economic growth. Dutch trade benefits from exports to Germany, the US and China, but trade opportunities with other European countries are meagre. As a result, the economy does recover from the crisis and unemployment returns to equilibrium, but at a rather slow rate.

Consumption by households depends on their disposable income and wealth, and of course on the decisions they make in spending these resources. Real disposable income keeps pace with economic growth, which allows for positive consumption growth at a moderate rate. A key determinant of households' wealth is the value of their house; see Chapter 3. Currently, 1.4 mln Dutch households are under water as a result of the fall in house prices. As house prices are assumed to increase by 3% annually in this scenario, part of these households have to deleverage and cut consumption in order to improve their net wealth position; the other part automatically grow out of their negative wealth position.

*Moderate Recovery* is an export-led growth scenario in which domestic spending is insufficient to absorb 1½% production growth. In terms of demand contributions to growth, more than 1 %-points of economic growth can be attributed to exports, whereas private and government consumption each contribute about ¼%-points. As a consequence, the current

account surplus increases to 12¾% of GDP. This begs the question whether European economies and the rest of the world are able to absorb our exports. The easy answer is 'yes', with a world trade growth of 4% mainly originating from Germany, the US and China, Dutch firms should be able to sell their products and services in the world economy. At the same time, this export-led growth imposes a risk: what if world trade growth weakens or our competitiveness deteriorates? The next scenario explores this risk.

## Government budget in three scenarios

The government budget improves from -2.9% in 2013 to -0.4% in 2023 in the *Moderate Recovery* scenario, see the table below. In the projections for the government budget in this scenario, which constitutes the starting point for the new CPB ageing study scheduled in July 2014, we make a clear divide in 2019. Up to and including 2018 we follow existing institutions and proposed policies, such as the indexation of tax brackets to price inflation, reforms and expenditure cuts in public health care and budgetary plans for government expenditures. In the period 2013-2015, these policies in combination with a recovery of economic growth imply an improvement of the government budget to -2.1%. From 2019 onwards, we apply the same rules as in the ageing studies, where tax rates are assumed to be constant, and government expenditures are indexed to wage growth or structural GDP growth. Importantly, we assume that government expenditures do not follow the catch-up growth from actual GDP to potential. We thereby take into account that the government budget has cyclical components, with pro-cyclical tax revenues, counter-cyclical transfers but relatively stable public outlays.1) Another reason behind the improvement of the government budget is structural reforms on pensions, with an increase in the pension age. On the other hand, the budget deteriorates, due to limitations on natural gas extraction.

**Public expenditures and revenues, 2015, 2023, % GDP**

| | 2015 | Accelerating recovery | Moderate recovery | Delayed recovery |
|---|---|---|---|---|
| | | 2023 | 2023 | 2023 |
| Government expenditures | 50.1 | 46.8 | 48.2 | 51.0 |
| Taxes and premiums | 41.3 | 42.2 | 42.4 | 42.7 |
| Other revenues | 6.8 | 5.1 | 5.4 | 5.8 |
| EMU balance | -2.1 | 0.5 | -0.4 | -2.6 |
| EMU debt | 75 | 52 | 63 | 83 |

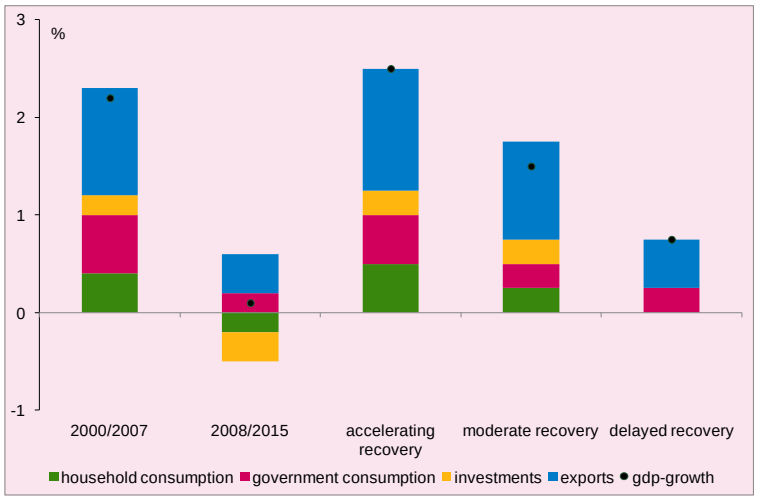
A similar approach is taken in the *Accelerating* and *Delayed Recovery* scenarios. Stronger economic growth (both actual and potential) leads to additional revenues and expenditures. In 2023, the budget balance has turned positive in the *Accelerating Recovery* scenario. The same approach implies a deterioration of the deficit and a surge of the debt ratio in the *Delayed Recovery* scenario. The reason behind this is that aggregate demand lacks aggregate supply, the output gap remains negative, and the actual budget balance lacks behind its structural value.

1) This is consistent with the calculation of the sustainability index in the ageing studies based on a cyclically adjusted measurement of the budget deficit.

The rising current account surplus is not only a risk; it can also be seen as a challenge for non-financial firms to turn their savings into profitable investments. Since the turn of the century, investments have lagged economic growth. In the coming decade, the investment-to-GDP ratio shows only a moderate recovery, despite abundant corporate savings. An important challenge in this scenario is to improve the conditions and opportunities for investment by Dutch firms. This includes, among other things, improvements in market-

based financing (see Chapter 2) and in the internal market for services (Chapter 7), as well as a reconsideration of tax policies favouring retaining earnings over remitting dividends and investing. The *Accelerating Recovery* scenario takes into account that these and/or other steps are taken, with an investment growth of 4% compared to 2% in *Moderate Recovery*.

**Figure 8.2 Contribution to growth before and during the crisis and in three scenarios for 2016-2023**




After seven lean years without economic and employment growth, the unemployment rate has risen beyond 7%, and about 1% of the working-age population would start searching for a job if the economic conditions are more favourable. In the *Moderate Recovery* scenario, the growth of exports and private consumption allows firms in the market sector to expand employment. Together with the expansion of the health care sector, this leads to an employment growth of ¾% annually.

*Moderate Recovery* implies sufficient upward pressure on inflation to stay away from deflation and at the same time hardly imposes any risk for overheating. The tightness of the labour market is low throughout the recovery period, with limited vacancies per worker, which implies that unemployment recovers only very gradually. Workers and unions refrain from strong claims, contractual wages grow at 2¼%, and real wages just keep pace with productivity growth. As a result, the labour income share is quite stable over the scenario horizon. In addition to labour costs, higher rental rates and import prices contribute to inflation, resulting in CPI inflation just below 2% in the Netherlands.

*Moderate Recovery* is a scenario at risk; economic growth is sensitive to negative shocks. Unemployment returns to equilibrium and inflation is just below 2%, but only if demand is able to meet supply. The Dutch economy leans greatly on exports, but what if our trading partners are not able to absorb these? Investments grow in line with GDP, both internationally and domestically, under the assumptions that firms are able to attract sufficient credit. But what if the financial sector, in order to meet restrictive regulations or to deal with the consequences of an alarming Asset Quality Review, cannot provide sufficient

credit? This fragility of the economy limits the government's manoeuvring room in balancing between consolidation and stimulating the economy.

## 8.4 Delayed Recovery

The contradiction in the label of this scenario is not a slip of the pen. On the question whether the economy recovers, the answer in this scenario is 'not yet', or 'if anything, a very slow start'. Downward risks in demand, combined with moderate potential growth, lead to quite limited growth, persistence in unemployment and low inflation. These demand risks include the fragility of the financial sector, the imbalances between core and periphery in the European Union, consumers and firms burdened with debts and the public debt position of member states in the euro area.

On the supply side, technological progress develops in a comparable way as in the *Moderate Recovery* scenario. All over the world productivity growth is low due to a declining contribution of ICT, weak investments in an uncertain and volatile world and the need for firms to devote resources to the repair of disrupted supply chains.

International trade also falters in the *Delayed Recovery* world. Recovery in the US progresses favourably and the US economy reaches full capacity in the second half of the next decade. However, on a global scale the US is one of the few economies that perform well. China struggles with social tensions, due to resistance against poor labour conditions, environmental degradation and a number of financial scandals. The growth of the Chinese economy falls back and drags the rest of Asia downward as well. Domestic problems make countries turn inward. Tensions rise in international relationships, which hinder trade negotiations. As a consequence, TTIP fails.

Although the financial sector played a key role in the start and extension of the Great Recession, its role in the recovery is more limited: facilitating rather than stimulating economic growth. The previous scenarios stressed that recovery has to come from the real economy with an upswing in production, investment, employment and consumption. The contribution of the financial sector is mainly supportive, although very important, in its key role of providing liquidity and loans. This calls for a healthy financial sector. However, the Asset Quality Review may reveal the weakness of the banking sector. Or it may fail to uncover the weakness of banks and thereby fail to effectively deal with banks in trouble. In combination with additional restrictions on the leverage ratio, this may induce banks to limit credit to both small- and medium-size enterprises and households. In sum, a weak financial sector may hamper recovery in this scenario.

The crisis has uncovered and aggravated the imbalances within the European Union. In the *Delayed Recovery* scenario, these imbalances will remain for the most part unresolved. Economically, inflation will be quite low on average in the European Union, which limits the possibility of peripheral countries to improve their competitiveness. Existing differences in

productivity levels persist (see figure 7.2), where countries like Germany, France, the Netherlands and Belgium are twice as productive as several Eastern and Southern European countries. Unemployment rates, both actual and structural rates, remain very high in countries such as Spain and Greece. These countries will be unable to reform their labour market institutions and reduce unemployment. Finally, as shown in Chapter 7, barriers in services sectors are high in a number of countries (including Italy, Spain, France and Germany). Reform options regarding both domestic regulation and the Services Directive are being delayed beyond the scenario horizon of 2023.

## Reforms, recovery and repair in Europe

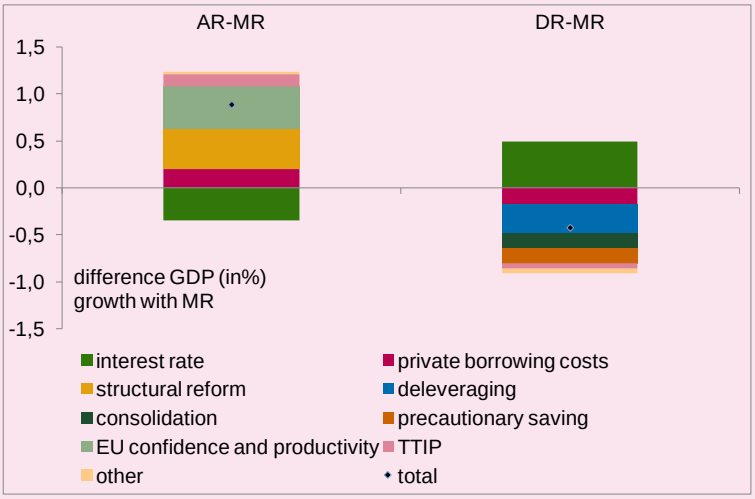
Chapter 7 highlights the development of European economies in the aftermath of the crisis. Structural reforms, new steps in the internal market and international trade agreements may all contribute to economic growth. In addition, growth depends on more exogenous factors (at least on the European scale) like technological progress. On the other hand, deleveraging by households, firms and governments may weaken the recovery of the European economy.

To get a flavour of the implications for economic growth, we have simulated these reforms, recoveries and repairs with NiGEM, see Veenendaal (2014). They span the difference between the three scenarios, as indicated by the figure below.

Economic growth in the euro area differs 1%-points between *Accelerating Recovery* and *Moderate Recovery*. Key contributions to this growth differential are structural reforms on the product and labour market and higher technological growth. In addition, TTIP and a lower risk premium stimulate trade and investment and contribute to growth in the *Accelerating Recovery* scenario. Aggregate demand is stimulated via higher income for households, a positive wealth shock which prevents the need for deleveraging by households and a boost in consumer confidence. However, these positive shocks stimulate inflation to which monetary policy respond by raising the interest rate.

The absence of recovery and the need to repair wealth losses constitute a difference between Moderate Recovery and Delayed Recovery of ½%-points. Important factors are deleveraging by households and firms and consolidation by the government. In addition, a higher risk premium reduces investments and lack of consumer confidence put a drag on private consumption. Now, the reduction of the interest rate provides the sole stimulus in the economy, but its effectiveness is smaller in the zero-lower-bound region (see chapter 7).

### GDP-differentials in the euro area




Differences in annual growth in the euro area between Accelerating Recovery (AR) and Moderate Recovery (MR), and between Delayed Recovery (DR) and Moderate Recovery). Source: own calculations with NiGEM.

Public and private deleveraging in an environment of slow economic growth entails risks of low inflation for a considerable period. The need to reduce public debt means that governments in the coming years have to deal with the choice between rapid and gradual deleveraging. Currently, countries with high debts (including Spain and Belgium, but also the United Kingdom outside the euro area) need an increase of their primary balance of 2 to 4 %-points of GDP to restore debt to the EU target of 60% of GDP. From a different point of view (i.e. the sustainability of public debt), several other member states have to improve their public balance. If anything, the current scenario with weak economic growth is harmful for the government budget and might induce additional consolidation measures. Combined with weak consumption and investment growth, aggregate demand likely lags supply, see textbox 'Reforms, recovery and repair in Europe'. Inflation will be low on average, and particularly the peripheral countries may run the risk of deflation.

In sum, economic growth in the euro area is limited to ¾%, aggravating the gap with the United States. World trade shifts away from Europe, both due to the weakness of the EU economies and the worldwide stagnation of international trade. Inflation is limited to 1% in the euro area, with very limited spread between southern and northern economies.

### The Netherlands

Insufficient demand is the key phrase characterising the *Delayed Recovery* scenario. Consumption is low, due to weak income growth and the need for deleveraging; investments respond to poor growth perspectives; and the world is unable to absorb our exports. Demand is insufficient for firms to produce full capacity or even expand, for graduates and unemployed workers to find a job and for discouraged workers to re-enter the labour market. Downward rigidity in wages, prices and the interest rate prevent effective recovery.

Households face a difficult decade in this scenario in which the recovery is delayed. Unemployment persists and even increases; real wage income doesn't improve, nor does the value of their houses. Even though income growth stagnates, households choose to save rather than to consume in order to improve their net asset position. In particular, households with underwater mortgages need to save in order to be able to move houses or renew their loans (see Chapters 3 and 6). As a consequence, consumption growth stagnates, and the individual savings rate increases to 2.5% of disposable income.

Long-term unemployment is an important problem in this scenario. Labour demand is very limited. If anything, firms prefer graduates rather than elderly workers with a long unemployment spell. So hysteresis, where the employment history of an unemployed worker is an important determinant of his or her job opportunities, is manifest in this scenario. Even after ten years, the unemployment rate stagnates at about 6½%. Hysteresis results from stagnant economic growth, and is not primarily due to labour market imperfections. For those whom it concerns, long-term unemployment negatively affects one's future earnings potential; see Chapter 5. Only in the very long run, when current cohorts have retired and the economy finally recovers, will these hysteresis and scarring effects fade away.

**Table 8.3 Main economic indicators for the Netherlands in three scenarios, 2016-2023**

| | Accelerating recovery | Moderate recovery | Delayed recovery |
|---|---|---|---|
| | 2016/2023 | 2016/2023 | 2016/2023 |
| | annual change, % | | |
| Gross domestic product (GDP, economic growth) | 2 1/2 | 1 1/2 | 3/4 |
| Consumption households | 1 3/4 | 1 | 0 |
| Consumption general government | 1 3/4 | 1 | 1 |
| Capital formation (including changes in stock) | 4 | 2 | 1 |
| Exports of goods and services | 5 1/2 | 3 3/4 | 2 1/2 |
| Imports of goods and services | 5 1/2 | 3 3/4 | 2 1/4 |
| | | | |
| Employment (working hours) | 3/4 | 3/4 | 0 |
| Labour force (persons) | 1/2 | 1/4 | 0 |
| | | | |
| Labour productivity | 1 3/4 | 1 | 3/4 |
| Contractual wages market sector | 3 1/4 | 2 1/4 | 1 |
| National consumer price index (CPI) | 2 1/2 | 2 | 1 1/4 |
| | level in final year, % | | |
| Unemployment rate (% of the labour force) | 4 1/4 | 4 1/4 | 6 1/2 |
| Labour share in enterprise income | 79 1/2 | 79 1/2 | 76 1/2 |
| | | | |
| Private savings (% of disposable household income) | -1 1/4 | 0 | 2 3/4 |
| Current-account balance (% GDP) | 12 1/2 | 12 3/4 | 11 3/4 |
| | | | |
| EMU balance (% GDP) | 0.5 | -0.4 | -2.6 |
| EMU debt (% GDP) | 52 | 63 | 83 |

Undergraduate economics tells us that prices adjust if supply exceeds demand. Indeed, in the current scenario, wage and price inflation is much lower than in the *Moderate* let alone the *Accelerating Recovery* scenarios. Still, the adjustment in the economy is insufficient for two main reasons: zero lower bounds and weak dynamics.

First, adjustment is limited by the low rate of inflation and the risk of running into deflation. The interest rate of the ECB is near the zero lower bound after the interest rate cut in June. Stimulus requires unconventional monetary policy rules, which are hard to pass through in a euro area with a weak financial sector. Also in the peripheral countries low inflation drives wages to the zero lower bound, which prevents that competitiveness improves. In this scenario the expectation that prices will not rise for quite some time affects intertemporal choices of households. Low expected inflation means high real interest rates, which incites consumers to postpone consumption and increase savings. Also firms will reduce investments when real interest rates raise the real costs of capital. Stated differently, price adjustment is hardly effective in stimulating aggregate demand if inflation is very low.

Secondly, weak dynamics contribute to the delay in recovery. In contrast to the virtuous cycles of the *Accelerating Recovery* scenario, in which firms compete for each worker and workers hop from job to job, cycles are vicious, and everybody is waiting for the other to

move. Therefore, price incentives hardly restore equilibrium on labour and product markets. This lack of adjustment mechanisms plays a key role in the consolidation literature explaining the strong output responses of fiscal policy at the zero lower bound; see the survey by Lukkezen (2013).

The government is therefore confronted with the difficult decision of improving its balance and reducing debt at high economic cost. Cutting expenditures or raising taxes further reduce demand in this lack-of-demand scenario. In the *Delayed Recovery* scenario, we make the same assumption as in both recovery scenarios that government expenditures keep pace with potential GDP and that tax rates are left unchanged, but revenues of course decline. This leads to a deterioration of the government budget and debt.

The economy would of course benefit from policies that would stimulate the dynamics of the economy, such as further reducing employment protection and initiating and supporting additional steps in developing the internal market— if such measures were possible in this scenario. It has to be said that these reforms are not without costs. For example, raising the job-finding rate for unemployed workers by cutting employment protection also raises the separation rate for the insiders on the labour market.

Investment growth is weak for a couple of reasons. On the demand side, expectations of future output fall, limiting the need and profitability of expanding the stock of capital. Low inflation raises the real cost of capital. The level of uncertainty is high, which drives up the price of risk. And the value of firms' collateral deteriorates. Only the higher profit margin, as indicated by a lower labour income share, might support investments. On the supply side, lending standards are tightened, as banks are hit by the delayed recovery as well.

The Netherlands is a small open economy which, in normal times, is able to benefit from foreign demand. Unfortunately, our key trading partners in the European Union suffer from the same lack of demand as the Dutch economy. In normal times, Dutch firms are able to compete internationally with advanced products and services at sharp prices. However, in the aftermath of the crisis, technological progress has slowed down, tensions rise in international trade and price competition is difficult with low inflation. As a consequence, export growth keeps pace with world trade growth at 2½% annually.

The *Delayed Recovery* scenario follows if the problems originating in the Great Recession continue unresolved. It is a scenario with weak potential growth, similar to the *Moderate Recovery* scenario. More importantly, this is a scenario in which households deleverage, firms limit investment, international trade stagnates and governments do not contribute to growth. Note that we have abstracted from new shocks, on either the positive or the negative side. Imagine that, given the previous description of the European and Dutch economies, the United States flourishes, growth in Japan finally resumes and China makes a successful transition from being an export-led economy to domestic growth. That might be just the trigger that the European economy needs. Indeed, it would pull the economy out of the *Delayed* into the *Moderate Recovery* scenario. But imagine that new crises hit the European economies: the fragile financial sector is hit yet again, government solvency is hit another

time, (parts of) the internal market are threatened, and so on and so forth. We do not have to describe the implications of new negative shocks. Suffice it to say that the *Delayed Recovery* scenario is vulnerable. There are many scenarios conceivable with lower economic growth than *Delayed Recovery*.

## 8.5 Conclusions

The scenarios developed in this book highlight that the Dutch economy has lot of potential to recover from the Great Recession, but that this recovery is still at risk.

The Great Recession has hit the Dutch economy severely, but has not destroyed its resilience. Productivity growth has slowed down in the Great Recession, but the underlying growth potential has not been affected. Workers are temporarily unemployed or discouraged, waiting for aggregate demand to recover. There is very little evidence for hysteresis in unemployment; if anything long-term unemployed continue their career path at a lower productivity and wage rate. Financial markets have played a key role in causing the crisis; it has mainly a supportive role in the recovery. Housing markets have been under severe distress, but a significant part of the house-price reduction might be regained in the coming decade. In these recovery scenarios, wealth and income positions of households and governments recuperate without additional deleveraging and consolidation measures.

Still, the economy is at risk. Crisis-related risks are concentrated on the demand side of the economy. The risk exists of a vicious circle, where households, firms and governments save rather than spend. This puts a drag on growth and possibly pushes the European and Dutch economies into a new recession with low growth and inflation, which in turn triggers additional deleveraging and consolidation measures. The risk exists of long-lasting unemployment, not because workers have lost skills in the Great recession and are unable to re-enter the labour market, but because firms are unable to expand employment. And to mention a final risk, in response to the Asset Quality Review or additional restrictive regulation, financial institutions may be concentrating more on improving their own financial position than providing credit to households and firms.

In the *Moderate* and *Accelerating Recovery* scenarios, recovery results in economic growth between 1½ and 2½%, a gradual return of unemployment to the equilibrium rate of 4¼%, an inflation rate near or even above the ECB-target of 2% and a more balanced government budget. Accumulated risks in the *Delayed Recovery* scenario put a drag on growth, maintain deflation risk in southern European countries in particular, prevent a recovery of the labour market and markedly increase government debt.

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*Roads to recovery* focuses on the Dutch economy in a European context. The book reviews the impact of the Great Recession and paints a picture of the economy today. It gives an outlook into the next decade by means of three scenarios for the European and Dutch economies.

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