INTERNATIONAL MONETARY FUND

KINGDOM OF THE NETHERLANDS—NETHERLANDS

Staff Report for the 2009 Article IV Consultation

Prepared by the Staff Representatives for the 2009 Consultation with the Netherlands

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EXECUTIVE SUMMARY

The Netherlands has proven markedly vulnerable to the global crisis given its large financial sector and strong trade and financial linkages. Amid collapsing exports and investment, staff expects GDP to contract by 4¼ percent in 2009, but expand modestly by ¾ percent in 2010, with subdued inflation. The outlook is unusually uncertain, but the risks seem roughly balanced. The authorities broadly agreed, though their baseline forecast is somewhat less sanguine, owing to a more pessimistic view of the external environment. External competitiveness is adequate.

The financial sector has been hit hard. While the mortgage and housing markets have been relatively stable so far, banks have suffered major losses, particularly from foreign troubled assets and sizeable declines in asset prices, requiring massive state intervention.

There was agreement that state interventions in the financial sector have been broadly appropriate and consistent with a sound "fix-it-and-exit" approach. Measures have included capital injections, nationalization, and government guarantees. While systemic risks have been addressed effectively and risk-weighted capital ratios are above required minima, building up equity to levels deemed more adequate in recent regulatory reform proposals and brisker lending to support the economic recovery may require banks to tap considerable extra capital. Officials concurred that reforms in regulation and supervision—including at the European level—and executive compensation should further buttress the financial system.

The consensus was that the fiscal position has weakened considerably. Large fiscal deficits of 4½ percent of GDP and 6 percent of GDP are expected in 2009 and 2010, respectively, reflecting the cyclical downturn, as well as structural relaxation. Public debt has surged as a result of the ongoing budget relaxation and the financial sector assistance. Staff views the fiscal relaxation as appropriate as part of an EU-wide fiscal stimulus, but, owing also to higher estimates of long-run aging pressures, the estimated fiscal sustainability gap has risen substantially to about 8 percent of GDP.

Ambitious fiscal consolidation is contemplated from 2011 onward, as recovery firms. The authorities have already announced measures totaling 1¾ percent of GDP to be implemented, if enacted by parliament, from 2011, including an increase in the retirement age to 67 years. Moreover, working groups have been set up to formulate by spring 2010 proposals for savings of up to 20 percent of budget expenditure and tax reforms. Plans to embed the SGP in Dutch law could usefully strengthen the commitment to deficit reduction. Staff supported these moves and recommended steps to moderate spending increases in pension, health- and old-age care.

Further structural reforms would alleviate the adverse impacts of the crisis and population aging on growth. The authorities endorsed the need to increase labor participation, especially for female and elderly work, and to boost productivity through innovation and enhancement of competition in product markets.

I. Staff Appraisal

1. **The Netherlands has been dealt a severe blow by the global crisis.** Owing to its large financial sector as well as sizable foreign trade and financial exposures, real GDP will suffer an unprecedented fall in 2009 and only a modest recovery is expected in 2010. Risk factors appear to be balanced. The crisis has also led to a sizable permanent loss of potential output. Despite this, activity is now well below potential, leading to a rapid decline of inflation. External competitiveness remains adequate.

2. **The financial sector has been hit hard and the fiscal situation has deteriorated, compounding long-term aging pressures.** Although the mortgage and housing markets appear relatively stable, banks have suffered major declines in asset quality, profits, and capital, while lending conditions have tightened. The fiscal position has weakened considerably, because of the cyclical downturn, sizable stimulus to buoy economic activity, and massive financial sector bailout. Aging weighs down heavily on fiscal sustainability (and it could also further lower potential growth in the longer-run).

3. **The authorities' interventions in the financial sector have been apt, but bank capital should be strengthened.** Additional capital, equity in particular, will be required because of the likely losses associated with the ongoing recession, the need to augment existing capital buffers, and an expected intensification of lending when the crisis subsides. Tightening of prudential requirements for capital should occur gradually so as not to stiffen already tense credit conditions. Steps envisaged by the authorities to permit accelerated, but judicious, lending in support of the budding economic upturn appropriately include proactive use of opportunities for market access to improve quality of capital with a higher proportion of equity and suitably restricting dividend payments. In addition, further measures together with the EU should ameliorate counter-cyclicality of bank capital, and transparency and robustness of valuation.

4. **Going forward, the financial system should be bolstered by regulatory and supervisory reform.** In particular, higher risk-weightings and capital requirements for resecuritizations and high-LTV-ratio mortgages as well as reduction of incentives for high LTV loans, such as limitations on mortgage interest deductibility are desirable. In addition, better data on and stress testing of risks emanating from house price movements would be useful, in light of associated large exposures by both banks and households, while appropriate capital standards for securitizations could be introduced favoring "clean" transfer of risks under "true sale" operations. Cross-country supervision and resolution should be strengthened at the European level, broadly in line with the de Larosière proposals.

5. **It is not too early to prepare for the eventual exit from financial sector support measures.** A thorough assessment of the impact of removing or curtailing exceptional access to liquidity support, deposit insurance, and deposit guarantee programs would help determine the appropriate timing and speed of the exit to avoid disruptions to affected institutions and

markets. In addition, institution-specific restructuring and divestment plans for the large entities in which the state has injected equity or quasi-equity should be completed.

6. **The accommodative budgetary stance envisaged by the authorities for 2009-10 is appropriate, but the composition of expenditure increases is a concern**. A continuing fiscal relaxation is warranted in light of sizable negative output gaps expected to persist over the medium term and the still quite fragile prospects for economic recovery. However, the significant contribution of recurrent spending to the ongoing fiscal loosening will prove difficult to reverse when growth picks up.

7. **At the same time, the sizable weakening of the budgetary position calls for a strong and credible commitment to fiscal consolidation after 2010**. The fiscal sustainability gap is much larger than estimated in recent years, owing to an upward revision in aging-related budgetary costs as well as the crisis-induced deterioration in government deficit and debt. Thus, staff supports the authorities' intention to tighten fiscal policy starting in 2011, provided growth firms, with the eventual aim to erase the sustainability gap—gradually, but with sufficient frontloading to lend credibility to the endeavor. Accordingly, fiscal adjustment targets for 2012-15 and supporting measures should figure prominently in the coalition agreement that will emerge from the 2011 elections, as part of an overall exit strategy.

8. **The twin pillars of fiscal consolidation are expenditure retrenchment and tax-base broadening**. Aging will push up public spending and there is only limited scope to raise tax rates, given associated deadweight losses and international tax competition. Moreover, expenditure-based consolidations are generally more durable, and efficiency enhancements are key to reduce spending without jeopardizing public service provision. In this regard, pension, health and old-age-care reforms are crucial to containing—particularly aging-related—expenditure. This includes raising the retirement age (as is currently planned pending parliamentary approval), and relying more on means-testing and second pillar pensions. Also, an increase in user fees could restrain health-services demand, while significant savings in long-term care are possible with a tighter definition of entitlements. Sustained productivity increases in health- and long-term care would contain corresponding spending pressures. The authorities' recent proposals (¶51) and ongoing review of public spending go in the right direction.

9. **Improvements to Dutch trend budgeting should reduce its procyclicality and augment its flexibility to deal with severe recessions**. Expenditure ceilings should permanently exclude cyclically sensitive outlays and be revised if actual growth deviates substantially from its potential, thereby allowing for discretionary fiscal impulses in case of sharp contractions, without forcing a breach of the ceilings.

10. **Renewed momentum with structural reforms would alleviate the adverse impacts of the crisis and population aging on growth**. Building on past progress, labor

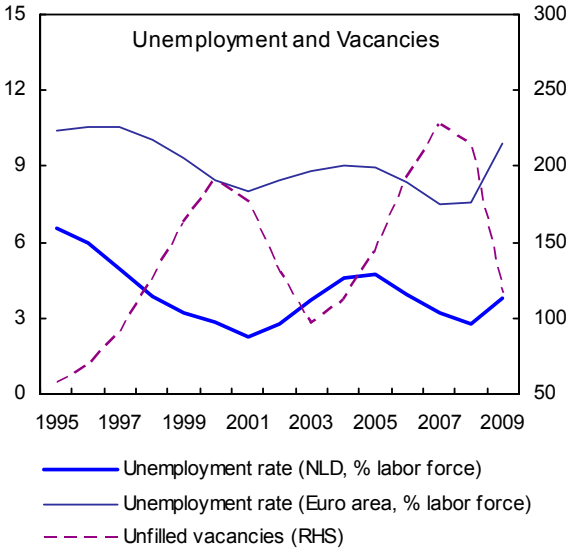
market reforms should aim to increase participation further (including reforms of the tax and benefit systems and increasing the retirement age), while productivity should be boosted through reforms directed at strengthening innovation and competition. As noted, pension and health-care reforms are also required to support fiscal sustainability.

11. **The next Article IV consultation will be held on the standard 12-month cycle**.

II. Economic and Financial Situation

A. Real Activity and Inflation

12. **The Netherlands entered a deep recession in mid-2008 driven by the global crisis.** The Dutch economy was particularly exposed given its relatively large financial sector and strong global trade and financial linkages (Figure 1 and ¶s 28, 29). Thus, while growth attained 2 percent in 2008 overall thanks to a large carryover from 2007, it turned negative already in 2008:Q2. The contraction intensified until mid-2009, resulting in an unprecedented 5 percent fall by 2009:Q2 (reduced to 3¾ percent in 2009:Q3, year-on-year). From the demand side, the recession was spawned by collapsing exports and investment, amid inventory buildup and near-record declines in capacity utilization and confidence (Figures 2 and 3). With output shrinking fast, unemployment began to grow late in the year, reaching 3½ percent by September 2009. Government-subsidized temporary reduced-hours schemes have suppressed somewhat the unemployment rate, but enterprises' reluctance to shed labor so far has played a larger role.



Sources: Global Insight; and IMF, WEO.

13. **Inflation picked up in 2008 but turned down markedly in 2009** (Table 1). It remained below the euro area average in 2008—given the relatively slow pass-through of raw materials prices—and fell sharply in mid-2009 with significant cuts in electricity and gas tariffs. Despite the economic slack and declining inflation, wages are expected to increase by around 3 percent in 2009 as labor agreements were largely set before the crisis unfolded.

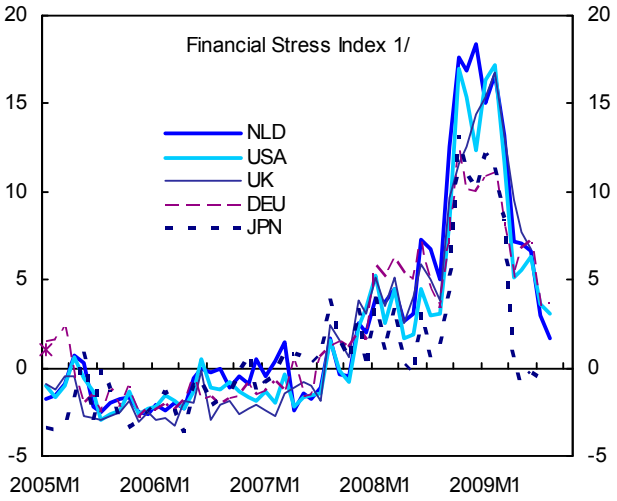
B. Financial Institutions

Banks

14. **Profitability, asset quality, and capital suffered major declines with the global financial crisis.**

- In 2008, the system experienced a massive loss, reflecting mainly large realized and valuation losses, but also lackluster efficiency, with staff costs a long-standing structural problem. The bulk of the losses came from U.S. subprime or other toxic assets and asset price declines. In 2009, revenue and profits have remained weak and large restructuring costs, including for staff cutbacks, are likely. These trends are expected to persist in 2010.

Financial Stress in the Netherlands remains elevated.



Source: IMF, WEO.
1/ A positive value implies strain.

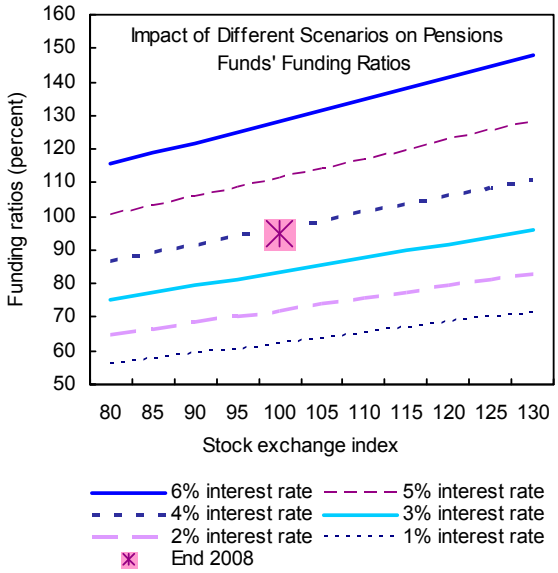
- Over 2008, the systemic Basel capital ratio contracted from 13.2 to 11.9 percent, with a similar deterioration for the Tier 1 capital/risk-weighted assets ratio (Table 3). The tangible common equity/total assets ratio (TCE/TA) declined slightly to 3.2 percent, despite a considerable infusion of public capital. Liquidity shrunk sizably across the system, while gross derivative exposure doubled to about 8 times capital. In 2009:H1, the Basel and Tier 1 capital ratios improved significantly, due mainly to deleveraging. The TCE/TA ratio rose at the five major banks, but with great variations among them.

15. **Except for Rabobank, major banks' ratings have been cut repeatedly since October 2008.** Both ABN AMRO and ING were downgraded, most recently in May, and remain on negative outlook. By contrast, Rabobank, a conglomerate of cooperative banks with a less international and risky asset profile, has retained AAA rating.

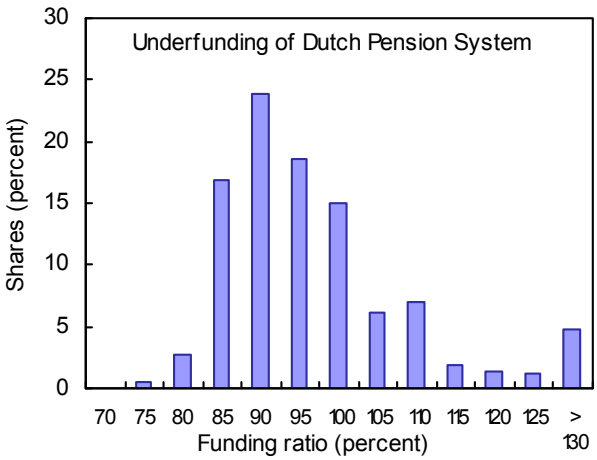
Insurance and pension funds

16. **Insurance sector profits and solvency also declined sharply.** The drop in equity prices and interest rates, coupled with falling new insurance origination, have led to much lower profits and solvency ratios in 2008-2009:H1 and major insurance companies were downgraded. Aegon and SNS have needed government support since late 2008. Both have now raised equity from the market and intend to start repaying the government in 2009.

17. **Similarly, pension funds suffered a major deterioration.** Faced with the double whammy of lower interest rates (which increase the value of their liabilities) and dropping asset prices, the average funding ratio collapsed in 2008. Indeed, 300 out of the nearly 400 funds ended below the minimum funding ratio of 105 percent, compared to only 2 at the beginning of 2008. All of them have submitted recovery plans. Funding ratios have improved markedly in 2009 reflecting equity market buoyancy (in November, 118 funds remained below the minimum fund ratio).



Source: Netherlands Bank.

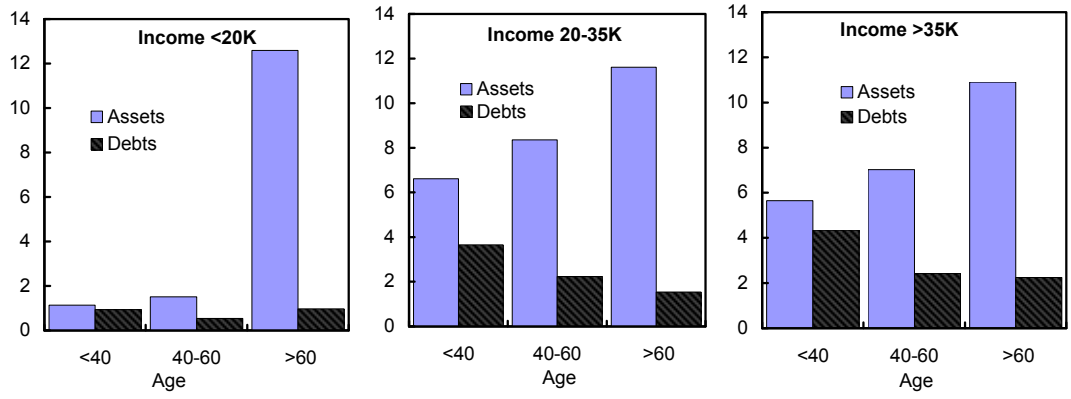


Source: Netherlands Bank.

C. Households and Corporations

18. **Households are confronted with falling net worth and rising unemployment.** Household net worth has been falling as a result of a decline in financial asset and home prices (the former now partly reversed), possible reduction of pension indexation, and income loss from rising unemployment. Younger households with low income have collectively no net worth and those with high LTV or payment/income ratios are at elevated risk of default.

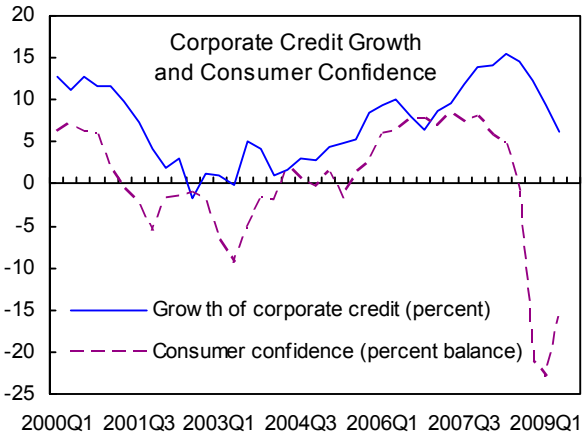
Netherlands: Household Assets and Debt by Age Cohort and Income Group
(In thousands of euros)



Source: Netherlands Bank.

19. **Nevertheless, the Dutch mortgage market is relatively stable.** Limited land availability and generous interest deductibility reduce the likelihood of sharp house price corrections, while large transaction costs deter speculation. Banks have first charge at default, full recourse against the borrower, and often maintain collateral against mortgages in separate investment/insurance accounts. Moreover, a hefty fraction of mortgages are covered by a state guarantee fund. While full interest deductibility for one house does encourage large mortgages, mortgage default rates are extremely low.

20. **The housing market also does not appear out of kilt, albeit with caveats**. Home prices have been declining since late 2008, and are now about 5 percent lower than a year ago. Also, some raw indicators point to overvaluation. However, taking account of existing regulatory constraints, which tend to cause higher prices, staff analysis and work by other institutions shows that house prices are broadly in line with fundamentals (Analytical Note 1—AN 1), though this result is sensitive to choice of the initial period of estimation. Overall, a severe contraction of house prices is assessed to be a medium intensity vulnerability.

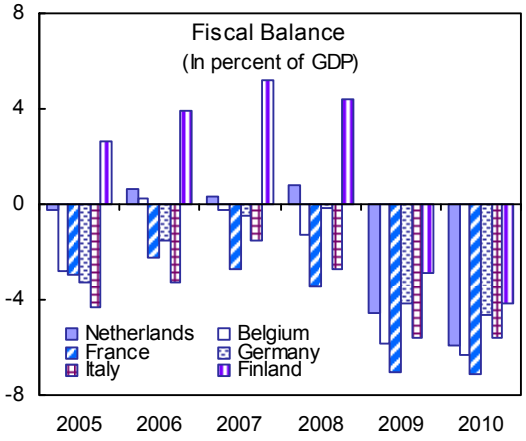


Source: DNB Overview of Financial Stability, May 2009.

21. **Firms entered the crisis with solid balance sheets, but vulnerabilities are rising.** Corporate bankruptcies are predicted to climb significantly in 2009. As Dutch corporations are more dependent on bank lending than eurozone, U.S., or U.K. counterparts—with loans to non-financial corporations totaling over 60 percent of GDP—their recovery from the recession and future investments may be comparatively lagging.

D. Public Sector

22. **The fiscal position has deteriorated sharply in 2008-09** (Table 2). The general government (GG) surplus rose to almost one percent of GDP in 2008, buoyed by spending moderation and strong gas revenues. However, GG debt surged to almost 60 percent of GDP, as a result of financial sector bailout programs, largely accounted for as financing transactions on the assumption that disbursements will be recouped once the economy recovers. The fiscal balance is projected to turn a large 4½ percent of GDP deficit in 2009, amid falling revenues—



Sources: WEO and IMF staff estimates.

from the collapsing output—and soaring expenditures. The spending surge is associated with a stimulus package introduced in early 2009 to mitigate the impact on economic activity of the global crisis (¶44), but was also in part already enshrined in the 2008 medium-term budget.[1] Together with a contraction in potential output (¶31), swelling outlays imply a substantial decline in the robust balance.[2] At the same time, population aging remains a millstone on long-term fiscal sustainability (¶47).

Evolution of Robust Balance
(In percent of potential GDP)

	2007	2008	2009	2010
Structural revenue excl. property income	43.4	43.3	42.3	42.0
Structural primary expenditure	44.7	45.6	46.7	47.1
Robust balance	-1.4	-2.2	-4.4	-5.0
Of which: stimulus package	…	…	0.7	0.2
Memorandum item:				
Headline fiscal balance (percent of GDP)	0.3	0.8	-4.5	-5.9

Sources: Ministry of Finance; and IMF staff estimates.

E. External

23. **Sizable current account surpluses and a range of indicators suggest adequate competitiveness** (Box 1 and Figure 4). During 2007–08, the current account surplus hovered around 7½ percent of GDP and is projected to decline to the 6¾–7 range during 2009–10, as decelerating import demand does not fully offset contracting exports, lower average gas prices, and continuing trend erosion in the terms of trade. In the medium term, the current account is expected to remain in significant surplus, with the important financial sector and old-age pre-funding boosting the Dutch savings rate.

[1] Expenditure ceilings for 2009-10 were formulated in the 2008 medium-term budget on the basis of projections for inflation and growth far higher than now expected.

[2] Robust balance is the structural primary balance excluding property income (mainly gas revenue).

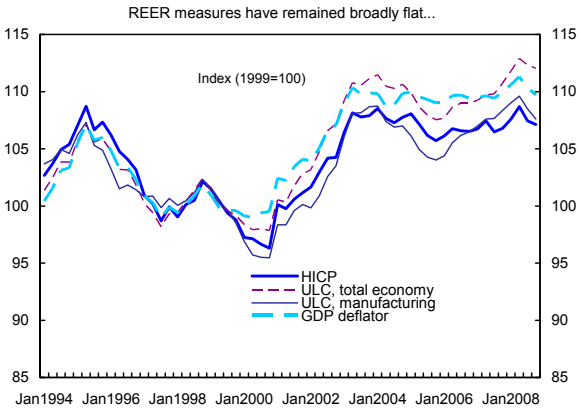
Box 1. The Netherlands: External Competitiveness

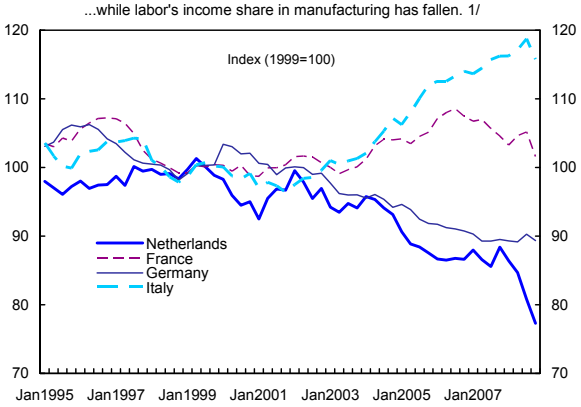
A range of indicators and the sustained large current account surplus suggest a comfortable competitiveness margin has been maintained:

- ***REER measures—using different cost or price indices—have basically moved sideways*** (around the 2003-2007 averages), following the appreciation between 2001-03. Unit labor costs have fallen or remained flat in recent years largely on par with competitors (Figure 4), and low inflation has helped to contain the REER appreciation.

- ***Exporter profitability has continued to improve***. Profitability in the tradable sector is proxied by the ratio of unit labor cost in manufacturing (ULCM)-based REER to the REER using the industry deflator (also a proxy for labor's income share). This measure suggests a continued improvement in relative profitability (or decline in labor's income share) in manufacturing since 2002—more so than in Germany and in contrast to Italy for which this gauge pointed to deteriorating profitability/competitiveness.

- ***Pre-crisis export growth was relatively high and market share has grown*** (Figure 4). With export growth of around 15½ percent during 2002-08, export growth has exceeded the euro area average of under 12 percent. However, re-exports (which account for around half Dutch exports by value) have been important in driving the growth in the overall market share.





Source: European Commission; and staff calculations.
1/ Proxied by the ratio of ULMC-based REERs to industry price deflator-based REERs.

Multilaterally consistent CGER methodologies suggest that the real exchange rate is broadly in equilibrium. While there is some divergence, the average of the methods indicates that the real exchange rate is largely in line with fundamentals. The medium-term current account (CA) surplus is close to the CA norm, which itself largely reflects the Netherlands' financial center role as well as a high saving rate, influenced in part by the robust second pillar pension system. CGER assessments going forward may be affected by crisis-related changes in the relationships underlying the approaches.

Equilibrium Real Exchange Rate Estimates Using CGER
(Level relative to equilibrium in percent; minus indicates undervaluation)

	CGER Methodology			CA/GDP		
	MB 2/	ERER 3/	ES 4/	2008	2014 WEO	CA/GDP Norm 2/
Netherlands	**0.7**	**1.0**	**-11.9**	7.5	6.7	5.7
Germany	0.0	3.0	-13.0	6.4	4.9	3.8

1/ CGER (Consultative Group on Exchange Rate Issues). Values between -10 and +10 mean the real exchange rate (RER) is close to balance. International Monetary Fund, 2008, Exchange Rate Assessments: CGER Methodologies (available at www.imf.org). CGER estimates based on data available in July 2009.
2/ Macroeconomic balance approach.
3/ Equilibrium real exchange rate approach.
4/ External sustainability approach.

III. MACRO-FINANCIAL LINKAGES

24. **Private lending, especially for mortgages, has slowed down substantially, the result of deleveraging and cyclical weakening.** Recession and poor producer confidence have dampened credit demand, while mounting conservatism of banks in the face of losses, soaring bankruptcies, and the triggering of adverse covenants in existing loans have weighed down on credit supply. Staff analysis detects emergence of a credit crunch from late 2007 (AN 2). However, as demand for credit has started declining faster than supply since 2008:Q2, any credit crunch may mutate soon into a credit contraction. Weak demand and supply conditions, monetary policy actions, and increasing spreads for longer-term bank funding were reflected in the substantial lowering of short-term interbank and corporate loan interest rates since late 2008, with only a small decline in longer-term rates (Figure 7).

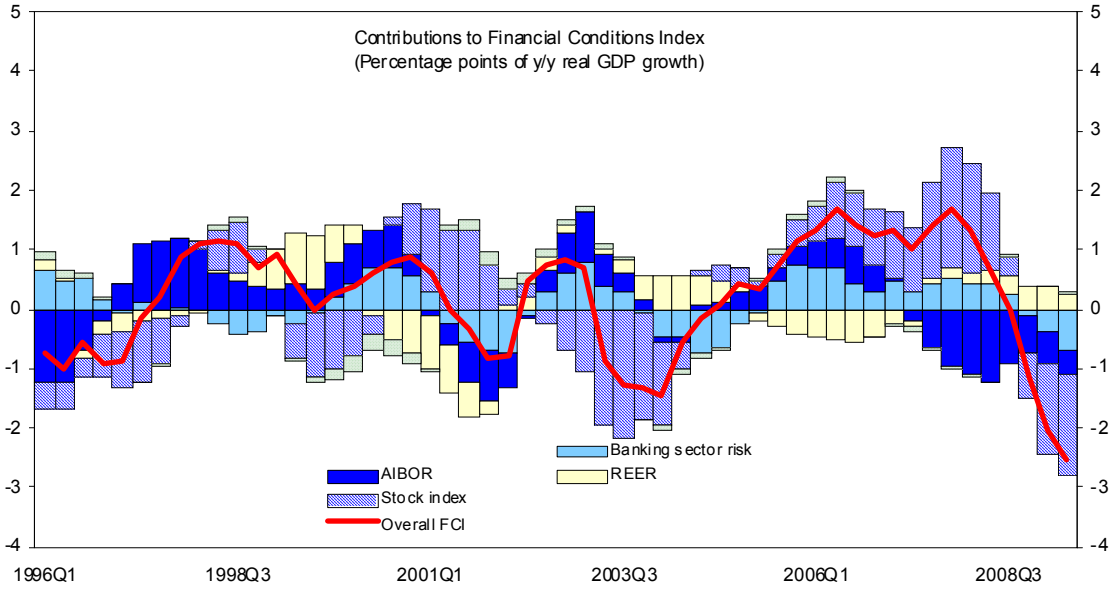
25. **Lending conditions have tightened substantially, especially for fixed-rate loans.** Three-quarters of all banks reported tougher lending standards for corporates at end-2008, and the proportion has grown in 2009. Those for residential mortgages hardened markedly from the second half of 2008, with over 80 percent of banks restricting credit.

26. **Financial tightening is likely to reduce significantly economic growth**. The share of the financial sector in GDP at 7½ percent is higher than in most EU countries. Thus, a financial contraction may materially hurt GDP growth. Adverse wealth effects could be a key channel in this regard. Notably, high household indebtedness, elevated loan-to-value ratios, and frequent mortgage-equity-withdrawal could exacerbate the consequences of tighter credit standards and falling house prices for consumption, inducing increased precautionary savings. Staff estimates the cumulative negative direct impact on 2008–10 growth of prevailing financial conditions at 3½ percentage points.

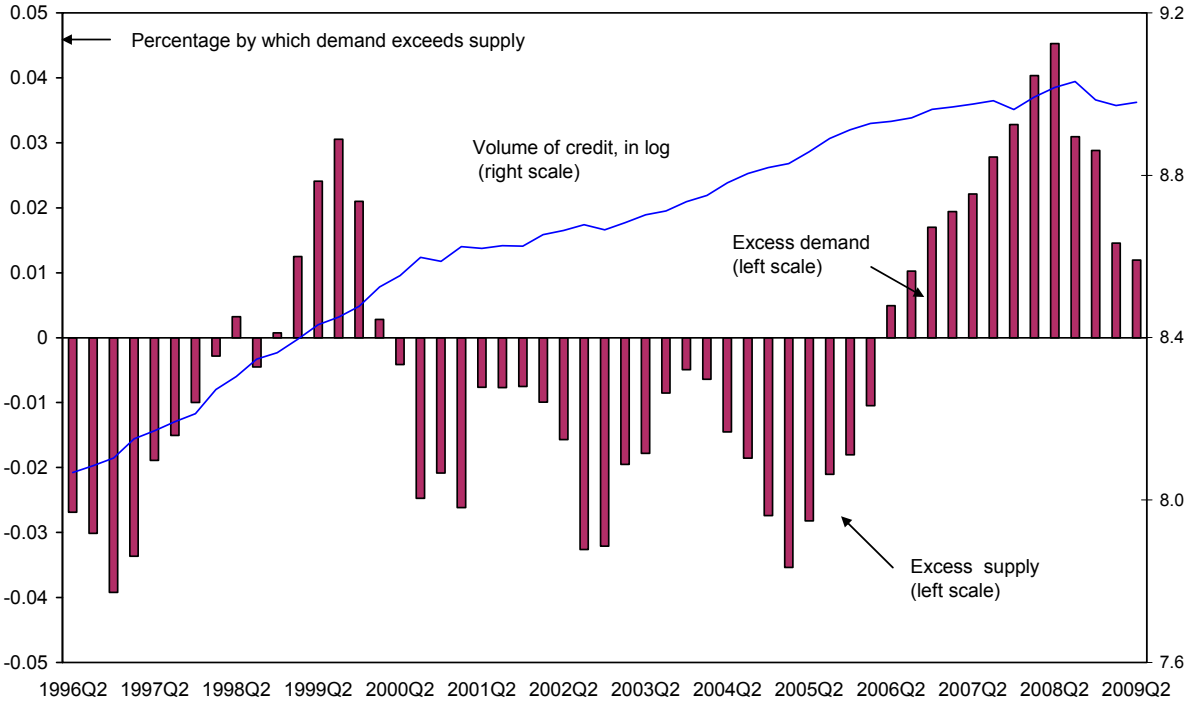
27. **The vulnerability of the financial system and real economy to house price developments seems manageable.** As noted above (¶19), several factors restrict the potential for steep house price corrections. Furthermore, econometric estimates point to a limited impact on GDP of a house price downturn (AN 1). Though highly leveraged households and banks' exposure to real estate developments could amplify the adverse consequences for economic activity, the impact on financial institutions would be lessened by the strong legal standing of creditors and extensive collateralization of mortgages.

Netherlands: Macro-Financial Linkages

The financial cycle has turned, which is estimated to reduce GDP growth as much as 3 percentage points through end-2009.



A disequilibrium model suggests that signs of a credit crunch have appeared over the past couple of years.



Sources: IMF staff estimates.

IV. CROSS-BORDER SPILLOVERS

28. **Extensive trade linkages have deepened the severity of the global crisis in the Netherlands.** Its trade openness is relatively large, even accounting for substantial re-exports. Export composition and direction also suggest special vulnerability to the global recession. Notably, the largest share of Dutch exports (over 75 percent) are to hard-hit Europe; and more than half (machinery and transport equipment, chemicals) are highly sensitive to the global investment collapse (Figure 5). Accordingly, Dutch exports are expected to decline by around 12 percent in 2009.

29. **Cross-border financial links of the Netherlands are also far-reaching.** The Dutch banking system has a relatively high share of foreign claims (around 30 percent of total assets), which makes it quite susceptible to a further deterioration in conditions abroad. Most of these external exposures are to advanced countries in Europe. Around one-third of foreign claims relate to just the United States, the United Kingdom, and Germany. Simulating the impact of a shock in one (or more) of these countries and the associated "domino effects" suggests that gross losses for Dutch banks could be potentially large (up to 25 percent of GDP).

Dutch Banks Claims Abroad
(As of end-June 2009)

	US$ Billion	Share (Percent)
Total	1,637	100.0
Advanced countries	1,366	83.5
Germany	174	10.6
Belgium	152	9.3
UK	197	12.0
US	267	16.3
Other	576	35.2
EMCs and developing	271	16.5
Brazil	12	0.8
Mexico	13	0.8
Poland	34	2.1
Romania	10	0.6
Russia	16	1.0
Turkey	20	1.3
UAE	4	0.3
Other	161	9.8

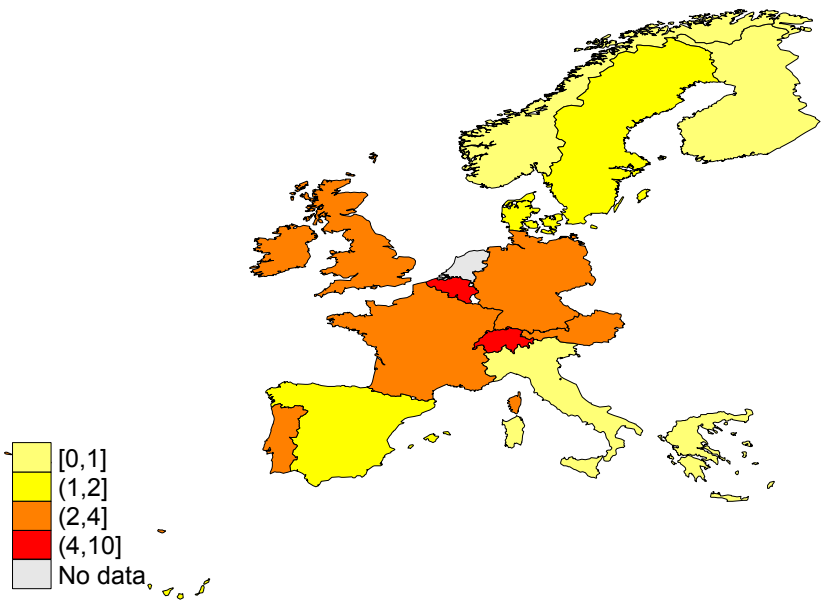
Source: BIS.

Spillovers to the Netherlands from International Banking Exposures

Shock Originating From	Magnitude 1/	Deleveraging Need 2/	Dutch Lenders' Losses (percent GDP)	Impact on Credit Availability (percentage points)
United States	10	0	5.5	-12
United Kingdom	10	0	2.7	-4.8
Germany	10	0	1.4	-0.1
UK and US	10	0	9.6	-24.4
UK and DEU	10	0	4.3	-6.3
US and DEU	10	0	7.5	-15
UK, US, and DEU	10	0	11.9	-29.8
United States	20	0.4	12.6	-31.1
United Kingdom	20	0	6.2	-15.6
Germany	20	0	2.9	-0.7
UK and US	20	79.7	21.5	-59.4
UK and DEU	20	0	11	-26.8
US and DEU	20	62.6	19.9	-56.9
UK, US, and DEU	20	100	25	-61.6

Source: Staff calculations based on BIS and IFS data.
1/ Magnitude denotes the percent of claims that default.
2/ Deleveraging need is the amount that needs to be raised through asset sales in response to the shock in order to meet the minimum capital requirement, expressed in percent of total assets.

Spillovers from the Netherlands
(Lenders' losses due to Dutch default, in percent of GDP)



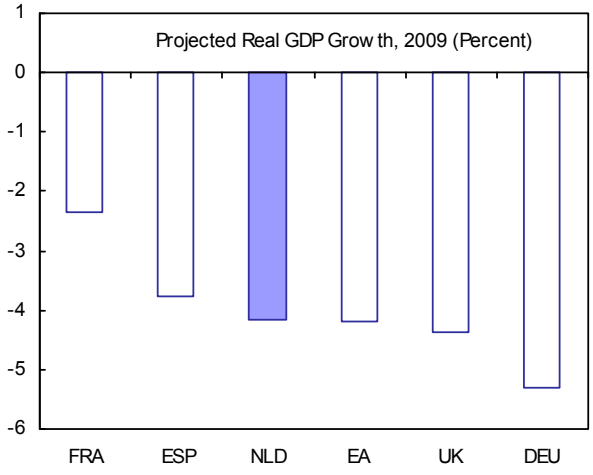
Contagion from a shock in the Netherlands is largely contained to Europe: most adversely affected is Belgium, followed by Switzerland, France, Ireland, Portugal, Austria, and the United Kingdom. It would also take a high default rate (50 percent in the map) for losses to reach significant levels.

V. Macro Outlook

A. Central Scenario

Prospects for 2009 and 2010

30. **The economic contraction (y-o-y) is expected to continue through mid-2010, albeit at a slower pace**. Staff forecast a fall in real GDP this year of 4¼ percent and a tepid expansion of ¾ percent next year. Accordingly, output will turn sharply below potential. Despite signs of improvement, with a 0.4 percent real GDP increase in 2009:Q3 over Q2, recovery is likely to take firm root only in the second half of 2010. Private consumption is projected to remain frail in the near term as households face diminishing net worth, rising unemployment, and tighter credit. Similarly investment is likely to stay weak, owing to



large excess capacity, sluggish domestic and external demand, and stern lending conditions. Fiscal stimulus measures and large automatic stabilizers will however help reduce the downside for consumption and investment. The unemployment rate is expected to rise to about 6½ percent in 2010, and inflation to slow to around 1 percent this year and next. The authorities generally agreed with the staff's outlook. Though their projections were somewhat more pessimistic owing to less sanguine views on the external environment, they acknowledged that the latter was improving faster than in their forecast.

Medium and long-term prospects

31. **The supply potential of the economy has probably been severely curtailed by the crisis.** Potential growth may run considerably lower than before the downturn in the near to medium term, owing to the large contraction in investment, likely rise in structural unemployment (possibly discouraging labor force participation as well) and a deceleration in total factor productivity if financing constraints and increased risk aversion curb research and development. Potential growth is expected broadly to return to its pre-crisis trend of around 2 percent over the medium term, but leaving a permanent decline in the level of potential output—5 percent by 2014 (AN 3) when the output gap is anticipated to close.

Medium-Term Macroeconomic Framework

	2008	2009	2010	2011	2012	2013	2014
Real GDP growth	2.0	-4.2	0.7	0.6	1.7	2.1	2.6
Output gap (percent of GDP)	2.8	-1.9	-1.8	-2.0	-1.5	-0.9	0.0
Consumer price inflation (year average)	2.2	0.9	1.0	1.0	1.2	1.3	1.5
Employment growth	1.7	-0.7	-2.4	-0.3	0.3	0.7	1.1
Unemployment rate (Eurostat definition)	2.8	3.8	6.6	6.1	5.9	5.3	4.5
Current account balance (percent of GDP)	7.5	7.0	6.8	6.9	7.1	6.8	6.7
General government balance (percent of GDP)	0.8	-4.5	-5.9	-5.3	-4.1	-2.7	-1.2
Robust balance (percent of GDP)	-2.2	-4.4	-5.0	-4.2	-3.1	-2.2	-1.4
General government debt (percent of GDP)	58.2	58.9	63.9	67.9	70.1	70.5	69.0

Source: Dutch authorities, and IMF staff estimates.

32. **In the longer run, a rapidly aging population could lower potential growth further.** Imminent population aging will squeeze working-age cohorts, while slowing down trend productivity. Maintaining potential growth will therefore require boosting labor force participation and reforms to enhance productivity (¶56).

Long-Term Scenario

Prospects for labor force participation/employment and productivity growth imply a significant drop in per capita income growth.

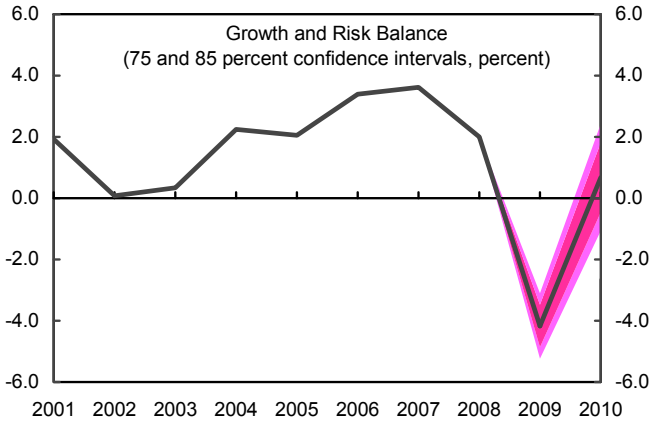
	1995-2000	2000-05	2005-10	2010-20	2020-30	2030-40
			(In percent)			
Productivity growth 1/	1.7	-1.2	0.6	1.4	1.3	1.3
Demographic contribution 2/	-0.1	-0.2	-0.2	-0.4	-0.5	-0.4
Employment rate contribution 3/	1.9	2.1	0.5	0.7	-0.1	-0.1
GDP per capita growth	3.5	0.8	0.9	1.7	0.7	0.8

Sources: WEO; Central Bureau of Statistics (CBS); Bureau for Economic Policy Analysis (CPB).
1/ GDP per employed. Projections assume a continuation of the most recent trend.
2/ Change in the share of population 20-64 years.
3/ Employed as a share of population 20-64 years.

B. Risks

33. **The outlook is unusually uncertain and the risks are roughly balanced**. Unparalleled interventions internationally have reduced the "tail-risk" of a systemic collapse, and global financial conditions have improved, but remain fragile. Accordingly, the main risks around the central projection include deviations from the baseline in: (i) lending and financial conditions; (ii) housing and equity prices; (iii) external demand; (iv) oil prices; and (v) size/effect of monetary and fiscal policy measures. Upside/downside risks stemming from these factors are deemed equally probable, but with uncommonly pronounced dispersion.

Real GDP Growth: Risks to the Forecast



The chart includes the risks to the projections of growth (-4.2 percent in 2009 and -0.7 percent in 2010) based on historical forecast errors increased by a factor of 20 percent to reflect increased uncertainty.
Source: IMF staff estimates.

VI. Key Policy Issues

34. **Against this background, securing the recovery and long-term sustainability are the key policy priorities**. In the near term, actions should focus on restoring health to the financial sector and an appropriately accommodative fiscal stance to support resumption of growth. These policies should be couched in a longer-run framework strengthening financial stability, ensuring fiscal sustainability, and renewing the momentum of structural reforms to boost potential output.

VII. Restoring Health to the Financial System

35. **There was agreement that bank support actions are broadly appropriate and consistent with those by other industrialized countries** (Tables 5, 6). The enlargement of deposit insurance and liquidity extension on full allocation basis were in accordance with EU-wide measures. Despite its nationalization, the authorities are not interested in long-term state ownership of Fortis and aware of the competitive distortions it may cause. The injections of capital in the form of preferred shares, linking preferred dividends to equity dividends, restrictions on equity dividends, and built-in incentives for quick redemptions are consistent with a sound "fix-it-and-exit" approach (Table 6). ING's toxic asset carve-out is also apt, although much depends on how the eventual disposal of the assets is managed.

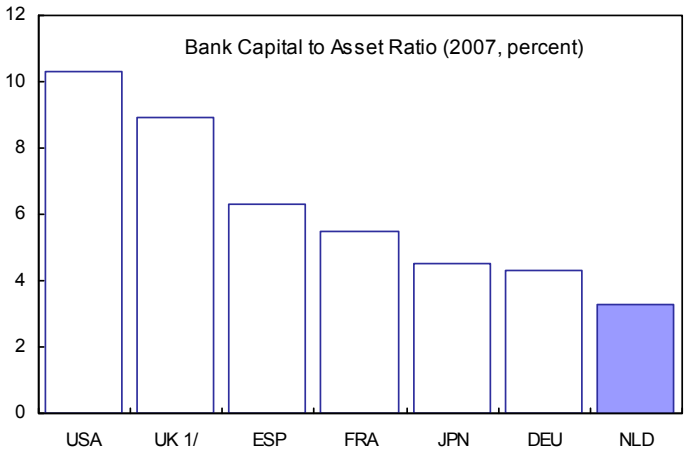
36. **The authorities are encouraging sound compensation policies broadly in line with the recent G20 recommendations.** Staff welcomed efforts to create a voluntary private sector code of conduct, linking remuneration and bonuses to long-term performance and establishing compensation committees of independent directors to develop explicit corporate policies and prepare annual compliance reports. The objective is to discourage risk taking deemed excessive from a social perspective, while providing incentives for effective management and good governance (and pursuing distributional fairness through taxation).

37. **Supervisors' approach to under-funding of pension funds is also sensible, although structural reforms may be required.** The authorities' decision to permit five years for restoring required funding is prudent. The DNB has promptly evaluated the recovery plans of about 340 pension funds. The plans involve sizable additional employer contributions, changes in contribution policies, and reduced or no-inflation indexation. Still, a long-term improvement in the funding ratio is contingent on a recovery in asset markets and a gradual rise in interest rates. Moreover, the preponderance of (nominally) defined-benefit plans is accompanied by the increasing role of risk-sharing arrangements (e.g. through contingent no-indexation clauses). A more balanced mix of defined-contribution and -benefit plans could thus be a strategic option.

38. **Staff argued that, while these actions have addressed systemic risks effectively, more capital may be necessary.**

- Risk-weighted capital ratios are above regulatory minima, but Dutch banks—like several European counterparts—have relatively low equity. The authorities' stress tests under fairly extreme shocks suggest losses of about €47 billion in 2009-10 for the banking system and major insurers—which are sizable but contained relative to the banks' asset base. All institutions would remain above required Tier 1 risk-weighted capital ratios

- However, even under less grave shocks, the financial sector is still likely to experience significant losses, given the impact of the unprecedented recession, eroding equity levels. Thus, brisker lending when the economy recuperates, enhancement of existing capital buffers, and building up equity to levels considered more adequate in recent regulatory reform proposals (AN 4) may require considerable additional equity capital. Several banks have already raised market-based equity and debt funding. The state's commitment to restoring intervened banks to health and the ongoing restructuring and divestment of non-strategic businesses should further improve these entities' market access over time, ensuring that extra capital may be tapped without sizable government injections.



Source: IMF, GFSR.
1/ 2006 data

A. Troubled Assets and Capital Adequacy

39. **Supervisors concurred that continued efforts towards clean-up and capitalization are key to allow banks to support the recovery**. Staff emphasized that domestic stress testing should continue to center on a comprehensive review of capital needs and viability on an institution-by-institution basis, taking into account the impact of the ongoing recession on capital. The authorities confirmed their intention to require timely remedial measures from banks that appear vulnerable under stressed conditions and consider public support with appropriate burden-sharing by shareholders and unsecured creditors.

40. **In the same connection, staff endorsed the authorities' actions to facilitate the expansion of bank lending when credit demand picks up.** Supervisors are taking steps to permit acceleration of lending in support of the budding economic upturn urging institutions to raise additional equity capital (also in anticipation of tightening capital standards) and long-term funding and limit appropriately dividend pay-outs. Consensus was that further actions in concert with the EU and Basel committee are needed to improve the counter-cyclicality of bank capital (¶41), and transparency and robustness of valuation. While broadly supportive of a stronger EU or global standard of capital adequacy, the authorities highlighted the need to recognize the low risk rating of Dutch banking assets and avoid large regulation-induced deleveraging.

B. Regulatory and Supervisory Response

41. **To buttress the financial system, the authorities are exploring some options proposed by staff to improve regulation and supervision**. These include: (i) higher risk-weightings and capital requirements, as well as better diligence, for resecuritizations, complex, illiquid, or lower-rated exposures, and high-LTV-ratio mortgages; (ii) reduced incentives for high LTV loans, such as limitations on mortgage interest deductibility; (iii) lowering of industry-wide LTV ratios or other risky exposures through code-of-conduct and similar collaborative exercises; (iv) better data on and stress testing of risks emanating from house prices; (v) for securitizations, appropriate capital standards favoring clean transfer of risks through "true sales" rather than transactions involving complex support arrangements from originators; and (vi) enhancements of the supervisors' powers of resolution.

42. **Concerning cross-country supervision and resolution, the authorities are supportive of measures broadly in line with the de Larosière proposals** (dLp). Their principal concern is that, absent effective EU-level supervision, deposit insurance, and fiscal burden-sharing (preferably pre-funded but certainly pre-committed), improvements in supervisory cooperation alone may not suffice. On the make-up of the future European System of Financial Supervisors (ESFS), the authorities strongly favor an integrated financial sector entity, rather than separate banking, insurance, and securities supervisory bodies. Also, while complying with the decisions of the EC competition authority, supervisors believe that a special unit to deal with financial sector competition issues in light of public interventions to stem systemic crises would be useful, since, in their view, present EC conditionality could place EU banks at a competitive disadvantage.

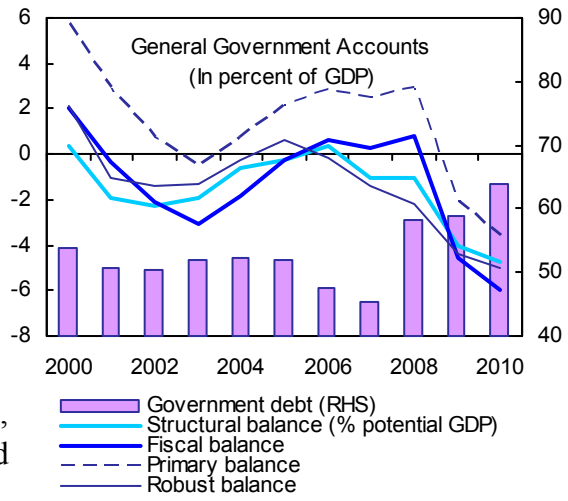
C. Exit Strategy

43. **The authorities intend to prepare a phased exit strategy from the heavy public support of the financial sector.** The enhancements to liquidity expansion, deposit insurance, and loan guarantees will be withdrawn in concert with the rest of the EU. Unwinding of systemic short-term liquidity and confidence-building measures is likely to occur first, followed by the phasing out of some guarantee schemes, while the disposal of equity and impaired assets will be a more prolonged process. Officials accepted that it would be valuable to assess already now the impact of removing these programs, thereby tailoring the timing and speed of the exit so as to ensure that markets and institutions concerned remain robust and sufficiently informed to withstand their phasing out. In addition, the authorities are developing institution-specific restructuring and divestment plans for the large entities in which the state has injected equity or quasi-equity, though full divestments could take 3-5 years. The exit strategy has also a fiscal dimension (¶48, 49).

VIII. Fiscal Policy

A. Short-Term Fiscal Policy

44. **Amid a massive economic downturn, policy makers have shifted priority to support growth through fiscal policy.** Following GG structural surpluses in 2006-08, the 2009-10 budgets envisage a decline in the robust balance of 2¾ percent of GDP from 2008 to 2010. Fiscal impulses of 2½ and ½ percent of GDP are estimated respectively for 2009 and 2010. Discretionary stimulus measures provide for unemployment alleviation; investment in infrastructure, housing, and the environment; and transfers, subsidies and tax allowances for businesses, especially small and medium-sized ones.



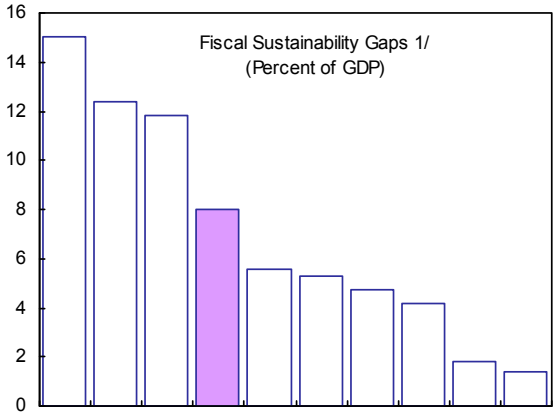
Sources: WEO, and IMF staff estimates

45. **Staff endorsed the relaxation pursued by the authorities for 2009-10, as part of an EU-wide fiscal stimulus package**. Indeed, a stimulative fiscal policy is both indicated from a cyclical perspective—given negative output gaps envisaged for 2009-14 as well as the uncertainty still surrounding the economic recovery in 2010—and feasible—given the comparatively favorable initial public debt burden. Rollover risks are limited by the long average maturity of public debt. The structural loosening executed for 2009 and planned for 2010 by the government also fits the broadly harmonized discretionary easing implemented by most EU members (the effectiveness of demand-enhancing measures in the Dutch medium-size, open economy would be limited if done in isolation).

46. **Nonetheless, the authorities shared staff concerns about the composition of expenditure increases.** Fiscal loosening should be designed to minimize the negative impact on the long-term budget position. Thus, it should rely on actions that can be implemented swiftly and clawed back quickly once growth prospects improve. The measures taken by the Dutch authorities that are part of the stimulus package proper fulfill largely such requirements. However, those emanating from the broader spending surge (¶22) seem less susceptible to fast retrenchment, being largely made of recurrent outlays. Spending cuts are under study in the context of the required medium-term fiscal correction (¶51).

B. Fiscal Sustainability

47. **There was agreement that the long-term fiscal position has worsened considerably** (AN 5). Besides the sizable structural fiscal relaxation in 2009-10 to prop up aggregate demand, the global crisis has led to below-the-line operations in support of the financial sector (which do not increase the deficit but add to public debt), and a deterioration in potential output. Given also expected increases in aging-related spending (almost 9 percent of GDP over 2011-60, mostly on account of pensions, health- and old-age-care), staff estimates that the GG robust balance after 2011 consistent with long-term sustainability will need to be permanently higher than in the no-measures path by 8 percent of GDP—the fiscal sustainability gap.[3] [4]



Sources: ECFIN Sustainability Report 2009, and staff estimates.

1/ECFIN's estimate of the Dutch gap is 6.9 percent of GDP, but with an structural primary deficit in 2010 of 1½ percent of GDP compared to staff's 2½ percent of GDP.

48. **Thus, the authorities viewed a strong and credible commitment to fiscal consolidation as crucial.** If fiscal sustainability and eventual solvency of the government come into question, interest rates would rise and the economic recovery as well as the authorities' ability to support the financial sector would be hampered. To avoid these risks and as part of the overall exit strategy (¶43), the authorities concurred that, with parliamentary elections in 2011, clear identification of time-bound fiscal adjustment targets for 2012-15 and supporting measures to be enshrined in the coalition agreement that will lead to the formation of the new government will be essential. Since front-loaded fiscal retrenchment is desirable for intergenerational equity and to contain the size of the required tightening, and output remains below potential through 2014, the government's objectives of reducing both the output and the fiscal sustainability gaps have to be balanced.

49. **Specifically, the 2010 budget memorandum (BM) envisions gradual tightening of fiscal policy from 2011, provided growth has firmed.** Officials observed that they planned structural fiscal consolidation of about ¾ percent of GDP per year (perhaps less in 2011,

[3] The sustainability indicator used is based on the intertemporal budget constraint (see AN5), and is consistent with the S2 measure of the EC (Sustainability Report 2009, pp148-149).

[4] If the corrective measures already announced by the government (about 1¾ percent of GDP) are enacted, the sustainability gap would be reduced accordingly. In addition, the gap could also turn out to be less if the large external current account surplus unwinds as a rising number of retirees draw down their accumulated pensions, thereby raising consumption based tax revenues as a share of output over the long run. But the size of this effect is quite uncertain.

given the lingering effects of the crisis) until the headline deficit fell below the 3 percent of GDP ceiling under the Stability and Growth Pact (SGP), likely by 2013. Staff endorsed this adjustment, which is also consistent with EC recommendations. The objective will be pursued flexibly, with the option to delay somewhat the headline adjustment in exchange for structural measures (such as increasing the retirement age), which improve significantly fiscal sustainability, but have only a modest short-run impact on the government balance. Consolidation will continue after the headline deficit is brought under the SGP threshold—possibly at a more measured pace, with a view to close the sustainability gap within a reasonable time frame, which staff also found agreeable.

Illustrative Optimal Annual Fiscal Adjustment Paths Under a Quadratic Loss Function 1/ 2/

Loss Function Weights		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Alpha 3/	Beta 4/										
		Structural primary balance (percent of GDP)									
1	1	2.3	3.3	4.0	4.5	5.0	5.3	5.5	5.7	5.8	5.9
0	1	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
1	0	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7
7	1	-1.9	-1.3	-0.8	-0.2	0.2	0.7	1.1	1.5	1.8	2.1
1	7	5.4	5.7	5.9	6.0	6.1	6.1	6.2	6.2	6.2	6.2
Memo item:											
Variable weights 5/		-1.6	-0.7	0.2	1.1	2.0	2.9	3.8	4.7	5.5	6.2

Source: IMF staff calculations.

1/ The plausible adjustment path in the fiscal sustainability panel figure corresponds to the variable weights fiscal adjustment path in this table.

2/ Structural primary balance in 2010 = -2.4 percent of GDP; structural primary balance target to close sustainability gap after 10 years = 6.2 percent of GDP; structural primary balance target to immediately close sustainability gap = 5.7 percent of GDP; fiscal multiplier is taken to be 0.8; output gap in 2010 = -1.8 percent of GDP.

3/ Weight on output gap.

4/ Weight on sustainability gap.

5/ Alpha is assumed to decline over time from an initial value of 7, while Beta rises at the same pace from an initial value of 1.

C. Measures to Achieve Sustainability

50. **The consensus was that adjustment should focus on expenditure retrenchment or tax-base broadening.** The government's economic footprint is already elevated and prevailing tax rates leave little upward room (Figure 10). Indeed, pressures from international tax competition may even lead to cuts in corporate taxation, while labor market reform may entail a reduction of marginal tax rates, since relatively large tax wedges on earned income discourage work. Efficiency enhancements, on the other hand, could reduce government expenditure without jeopardizing public service provision (¶53).

51. **The authorities have put in place a comprehensive approach to identify options for fiscal consolidation.** The government has already announced a package of measures equivalent to about 1¾ percent of GDP when implemented. These include a phased increase in the retirement age, caps on mortgage-interest-deductibility for high-priced homes, and

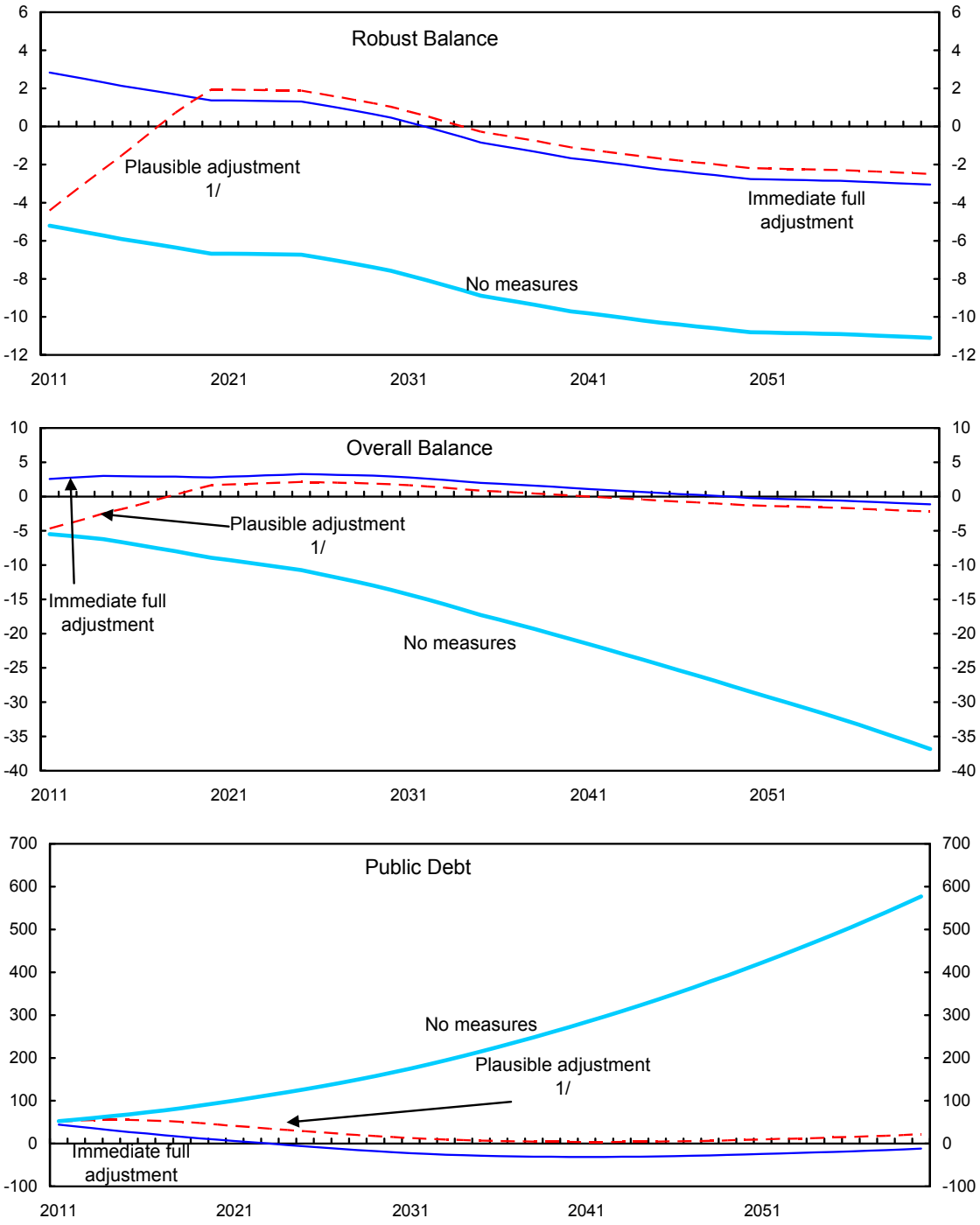
savings in the provision of medical and long-term care services. In addition, 19 working groups have been set up to formulate by Spring 2010 proposals for savings of up to 20 percent of budget expenditure. Another group is tasked with reexamining tax policy within the same time-frame. The aim is to select the most effective options to reduce credibly existing budget imbalances. In this connection, the authorities' proposal to embed the SGP in Dutch law could usefully strengthen the commitment to deficit reduction.

52. **The authorities view pension reform as key to contain the impact of aging on public finances.** The authorities confirmed their intention to raise the retirement age from 65 to 66 starting in 2020 and 67 in 2025, but noted stiff political opposition. Staff suggested consideration also be given to means-testing the generosity of basic benefits, while strengthening dependence on second-pillar pensions. These measures could be supported by intensified efforts to increase labor participation rates in order to broaden the base for funding pensions. The authorities have already moved in this direction by abolishing tax incentives for early retirement, with the aim to raise the effective retirement age.

53. **There was agreement that savings in health-care could make a considerable contribution to fiscal sustainability.** The authorities recognized that health-care expenditure continues to rise rapidly, despite the 2006 reform. Most of the projected surge in health-care spending over the long run is due not to demographic changes, but to expensive advances in medical technology and real income growth, given high income elasticity of health-services demand. Thus, staff argued that an increase in user fees could moderate demand growth, although care should be taken to prevent overburdening the chronically ill. Tighter definition of entitlements in long-term care could spawn savings in an area that has not been touched by the 2006 reform and where aging pressures will be strong. On the supply side, productivity increases in health- and long-term care of ½ percent a year (which has been achieved in some OECD countries) would lower significantly projected rises in spending. Officials expressed support for domestic and international benchmarking to identify best practices.

54. **The authorities could also consider a reduction in the maximum duration of unemployment benefits.** At 38 months, it is high by international standards. Cutting this to a more common 18 months should preserve an adequate safety net, while strengthening incentives for job-seeking and the fiscal position.

Netherlands: Fiscal Sustainability, 2011-60
(Percent of GDP)

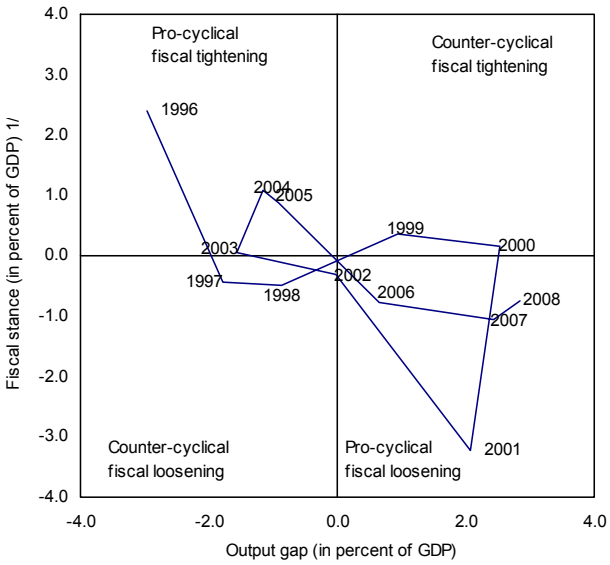


Sources: CPB: Ageing and the Sustainability of Dutch Public Finances (2006), ECFIN: The 2009 Ageing Report, and Staff calculations.

1/ The plausible adjustment scenario envisages the sustainability gap being closed by 2020.

D. Fiscal Rules

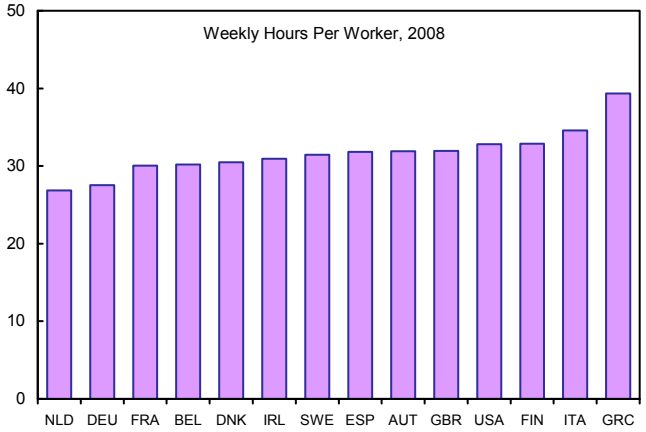
55. **Staff recommended refinements to existing trend-based budgeting to attenuate its procyclicality and clarify conditions for resetting expenditure ceilings.** Cyclically sensitive outlays, such as unemployment benefits and nontax revenues, should be permanently removed from the expenditure ceilings to prevent undesirable cuts in other spending during recessions. In addition, such ceilings ought to be updated in response to significant changes in potential growth or large deviations of actual growth from its trend. This would allow for discretionary stimulus measures in case of sizable downturns, without forcing a breach of the ceilings, thereby enhancing their credibility. Similarly, the 2 percent GG deficit trigger for fiscal tightening could be made more flexible so that it does not apply when the economy is contracting by more than a specified threshold—which would be consistent with the SGP. The authorities generally agreed, noting, however, that adding excessive flexibility to the fiscal rule could weaken its usefulness as a disciplining device.



1/ Fiscal stance is measured by the change in the robust balance

IX. Structural Reforms

56. **Staff encouraged renewed momentum with structural reforms in light of the likely impacts of the ongoing crisis and population aging.** Much has been accomplished in recent years, including reform of health-care and disability. However, since the current crisis will have long-lasting, possibly permanent, effects on growth and increase the fiscal sustainability gap, the case for accelerating productivity-enhancing structural reforms is strong. With the impending aging problem, progress is particularly urgent in labor taxation, social benefits, and employment protection—to curtail disincentives to female, disadvantaged youth, and elderly work. Indeed, labor force utilization in hours is



Source: OECD.

comparatively low, reflecting widespread part-time female work and low elderly employment (Figure 11).

57. **In this connection, the authorities pointed to some promising initiatives.** They have set a participation target of 80 percent by 2016, and have established the Dutch Labor Market Participation Commission to identify reform priorities to invigorate the labor markets. The Commission submitted its recommendations in June 2008, having identified steps to stimulate longer working lives. Staff and authorities generally concurred with the analysis and approach of the Commission and the government will institute some specific measures to boost participation (Table 7). Notably, those include reforms of the tax and benefit systems.

Table 1. Netherlands: Basic Data

Land area (2007)	41.5 thousand sq. km.
Population (2006)	16.3 million
Population characteristics and health:	
Life expectancy at birth (2006)	76.4 (male), 81.7 (female)
Fertility rate (2006)	1.7 children/woman
Infant mortality rate (2006)	4.96 per 1,000 live births
Population per sq. km. of land area (2006)	483 persons

National accounts 2007	(In billions of euros)	(In percent of GDP)
Private consumption	263.2	47.0
Public consumption	141.3	25.3
Gross fixed investment	111.6	19.9
Stockbuilding	-1.2	-0.2
Exports of goods and nonfactor services	421.3	75.3
Imports of goods and nonfactor services	376.6	67.3
Nominal GDP (at market prices)	559.5	100.0

							Proj.	Proj.
	2003	2004	2005	2006	2007	2008	2009	2010
	(Annual percentage change; unless otherwise indicated)							
National accounts (constant prices)								
Private consumption	-0.2	1.0	1.0	-0.3 1/	1.7	1.3	-2.5	0.2
Public consumption	2.9	-0.1	0.5	9.5 1/	3.7	2.0	2.5	1.5
Gross fixed investment	-1.5	-1.6	3.7	7.5	4.8	4.9	-10.7	-0.9
Total domestic demand	0.4	0.5	1.4	4.0	2.3	2.7	-3.2	0.6
Exports of goods and nonfactor services	1.5	7.9	6.0	7.3	6.7	2.7	-9.8	1.0
Imports of goods and nonfactor services	1.8	5.7	5.4	8.8	5.1	3.7	-9.2	0.8
Net foreign balance 2/	-0.1	1.9	0.9	-0.5	1.6	-0.5	-1.2	0.2
Gross domestic product	0.3	2.2	2.0	3.4	3.6	2.0	-4.2	0.7
Output gap (in percent of potential output)	-1.6	-1.1	-0.9	0.6	2.4	2.8	-1.9	-1.8
Prices, wages, and employment								
Consumer price index (HICP)	2.2	1.4	1.5	1.7	1.6	2.2	0.9	1.0
GDP deflator	2.2	0.7	2.4	1.8	1.6	2.7	0.7	1.0
Hourly compensation (manufacturing)	2.7	1.6	0.9	1.8	1.7	2.6	2.6	2.6
Unit labor costs (manufacturing)	1.9	-1.5	-0.8	-0.5	0.2	1.1	1.4	1.5
Employment	-0.6	-1.4	-0.4	1.5	3.7	1.7	-0.7	-2.4
Unemployment rate (in percent)	3.7	4.6	4.7	3.9	3.2	2.8	3.8	6.6
Personal sector								
Real disposable income	-0.3	2.2	0.4	-1.2 1/	2.9	1.5	-13.3	1.3
Household savings ratio 3/	6.3	7.8	6.7	5.4	6.4	6.7	5.6	6.6
External trade								
Exports of goods, volume	7.4	7.0	6.1	8.7	6.5	3.1	-11.7	1.0
Imports of goods, volume	2.3	7.4	5.7	10.1	6.8	4.4	-9.5	0.8
Terms of trade	0.8	-0.4	0.5	-0.3	-0.3	-0.1	2.1	-0.6
Merchandise balance (percent of GDP)	6.8	6.7	7.4	7.2	7.0	6.5	5.4	5.3
Current account balance (percent of GDP)	5.5	7.5	7.3	9.3	7.6	7.5	7.0	6.8
Public sector accounts (percent of GDP)								
Revenue	43.8	44.3	44.6	46.5 1/	45.9	46.7	45.1	44.7
Expenditure	46.9	46.1	44.8	45.9 1/	45.6	45.9	49.6	50.6
General government balance	-3.1	-1.8	-0.3	0.6	0.3	0.8	-4.5	-5.9
Structural balance	-2.0	-0.6	-0.3	0.4	-1.1	-1.0	-4.0	-4.7
Primary balance	-0.5	0.7	2.1	2.9	2.1	2.9	-2.1	-3.6
Structural primary balance	0.6	1.8	2.1	2.6	1.2	1.1	-1.7	-2.4
General government gross debt	52.0	52.4	51.8	47.4	45.5	58.2	58.9	63.9

Sources: Dutch official publications; IMF, IFS; and IMF staff estimates.

1/ The introduction of the new health insurance scheme in 2006 caused a significant shift in health care expenditure from private to public consumption, thereby lowering private and raising public consumption growth without changing overall GDP. In a related vein, government revenues rose and private disposable income fall, without affecting the financial position of the public sector or households net terms. This is because public expenditure for health care also rose, while the fall in private disposable income was offset by a similar fall in private health consumption, which is now taken care of in the public domain.

2/ Contribution to GDP growth.

3/ In percent of disposable income.

Table 2. The Netherlands: General Government Accounts, 2003–10

(In percent of GDP)

	2003	2004	2005	2006	2007	2008	2009 Proj.	2010 Proj.
Revenues 1/	43.8	44.3	44.6	46.5	45.9	46.7	45.1	44.7
Tax revenues and social security contributions	37.4	37.5	37.6	39.1	38.9	39.1	38.3	38.3
Tax revenues	23.6	23.6	24.6	25.0	25.4	24.6	24.8	23.9
Social security contributions	13.8	13.9	12.9	14.1	13.5	14.5	13.5	14.4
Nontax revenues	6.4	6.8	7.0	7.4	7.0	7.6	6.8	6.4
Expenditure 1/	46.9	46.1	44.8	45.9	45.6	45.9	49.6	50.6
Direct expenditure	29.1	28.6	28.1	29.4	29.6	29.7	32.4	32.5
Compensation of employees	10.1	10.0	9.6	9.3	9.2	9.1	9.9	9.9
Goods and services (excluding capital formation)	7.3	7.2	7.1	7.3	7.2	7.4	8.0	7.8
Fixed capital formation	3.6	3.2	3.3	3.3	3.4	3.5	3.7	3.9
Social benefits in kind	8.2	8.2	8.1	9.5	9.8	9.8	10.8	10.9
Transfers	15.2	15.0	14.4	14.3	13.8	14.1	14.9	15.8
Subsidies (including EU)	1.7	1.7	1.5	1.4	1.4	1.4	1.5	1.6
Other transfers	13.5	13.3	12.9	12.9	12.4	12.7	13.4	14.2
Households	10.9	10.7	10.2	10.3	9.8	10.0	11.0	11.5
Corporations	0.5	0.4	0.3	0.2	0.3	0.4	0.4	0.3
Rest of the world	2.1	2.2	2.4	2.3	2.3	2.3	2.0	2.4
Interest	2.6	2.5	2.4	2.2	2.2	2.1	2.4	2.4
Fiscal balance	-3.1	-1.8	-0.3	0.6	0.3	0.8	-4.5	-5.9
Memorandum items:								
Primary balance	-0.5	0.7	2.1	2.9	2.1	2.9	-2.1	-3.6
Structural balance (in percent of GDP) 2/	-2.0	-0.6	-0.3	0.4	-1.1	-1.0	-4.0	-4.7
Robust balance (in percent of GDP)	-1.3	-0.2	0.6	-0.1	-1.4	-2.2	-4.4	-5.0
Gross Debt	52.0	52.4	51.8	47.4	45.5	58.2	58.9	63.9
Output gap	-1.6	-1.1	-0.9	0.6	2.4	2.8	-1.9	-1.8

Sources: The Netherlands' Bureau for Economic Policy Analysis (CPB), Ministry of Finance, and Fund staff calculations and estimates.

1/ The introduction of the new healthcare system in 2006 did not affect the overall balance, but permanently increased both revenue and expenditure by 1.6 percentage points of GDP.

2/ The calculation of the structural balance is based on the standard methodology which uses fixed elasticities with respect to GDP. Biases can occur, in particular in the context of asset price boom and busts (as discussed for the Netherlands in SM/04/296), which especially affected 2000-03. Progressiveness in the tax system can also result in an overstatement of structural adjustment when GDP growth is high.

Table 3. Netherlands: Financial Soundness Indicators, 2003-2009
(In percent; unless otherwise indicated)

Indicator	2003	2004	2005	2006	2007	2008	2009
Regulatory capital-to-risk-weighted assets	12.3	12.3	12.6	11.9	13.2	11.9	13.3 2/
Regulatory Tier I capital-to-risk-weighted assets	9.6	9.9	10.3	9.4	10.2	9.9	11.2 2/
Bank capital to assets	4.30	3.90	4.20	3.00	3.30	3.2	3.5 3/
Net open position in equities to capital	59.9	79.6	80.6	91.1	83.2	31.1	30.0 2/
Contingent and off-balance-sheet accounts to total assets							
Nonperforming loans net of provisions to capital 1/	24.3	19.2	15.7	12.2	...	...	...
Nonperforming loans to total gross loans 1/	2.0	1.5	1.2	0.8	...	...	...
Return on assets	0.5	0.4	0.4	0.4	0.6	-0.4	0.0 2/
Return on equity	14.8	16.8	15.4	15.4	18.7	-12.5	-0.5 2/
Interest margin to gross income	60.5	58.9	54.1	51.4	52.0	187.8	70.2 2/
Noninterest expenses to gross income	75.5	70.5	70.1	74.0	78.3	230.6	116.4 2/
Sectoral distribution of loans to total loans (percent)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0 2/
Residents	74.0	73.7	68.7	63.2	59.7	64.4	67.1 2/
Deposit takers	14.6	15.1	1.3	1.6	2.0	3.0	3.3 2/
Central Bank	1.1	0.9	1.2	0.9	1.2	1.2	2.3 2/
Other Financial Corporations	9.2	10.2	12.8	12.1	10.0	10.9	10.9 2/
General Government	3.0	2.8	3.1	2.7	2.4	2.7	3.8 2/
Non Financial Corporations	17.4	16.3	18.1	16.5	17.5	19.3	20.2 2/
Other Domestic Sectors	28.8	28.5	32.3	29.5	26.6	27.3	26.6 2/
Non residents	26.0	26.3	31.3	36.8	40.3	35.7	32.9 2/
Residential mortgage loans to total loans	25.2	25.1	28.6	26.0	24.1	24.9	23.8 2/
Geographical distribution of credit (percent of total)							
Domestic Economy	...	41.0	35.2	33.7	30.2	42.7	44.2 2/
Advanced economies	...	54.7	59.8	60.5	61.6	49.9	45.1 2/
Emerging markets and Developing countries	...	4.3	5.0	5.9	8.2	7.4	6.3 2/
Africa	...	0.1	0.1	0.1	0.2	0.1	0.1 2/
Of which: Sub- Sahara	...	0.1	0.1	0.1	0.1	0.1	0.1 2/
Central and Eastern Europe	...	1.1	1.2	1.2	1.9	2.7	2.2 2/
Commonwealth of independent states and Mongaolia	...	0.3	0.4	0.5	0.7	0.9	0.6 2/
Developing China, including China	...	0.9	0.9	1.0	1.6	1.5	1.3 2/
Middle East	...	0.2	0.2	0.3	0.4	0.4	0.3 2/
Western Hemisphere	...	1.8	2.2	2.7	3.5	1.8	1.4 2/
Assets of financial entities (percent of GDP)							
Banks	308.3	341.5	330.2	314.0	326.1	378.5	395.8 4/
Insurers	61.6	64.3	67.3	65.1	63.7	62.9	64.3 3/
Pension funds	102.6	109.7	123.8	128.9	134.7	117.9	116.5 3/
Investment funds						30.4	49.7 2/
Average solvency ratio of insurers (percent)	259.0	264.0	301.0	326.0	262.7	209.5	...
No. of pension funds with							
Funding ratio < 105 percent	...	...	...	...	2.0	290.0	309.0 3/
Funding ratio 105 - 130 percent	...	...	...	...	151.0	92.0	65.0 3/
Funding ratio > 130 percent	...	...	...	...	283.0	25.0	18.0 3/

Source: Data provided by the authorities.

1/ Three largest credit institutions.
2/ Second quarter for 2009 data.
3/ First quarter for 2009 data.
4/ August for 2009 data.

Table 4. Netherlands: Indicators of External and Financial Vulnerability, 2003-09

(In percent of GDP; unless otherwise indicated)

	2003	2004	2005	2006	2007	2008	2009
External indicators							
Exports goods and services (Annual percent change, in U.S. dollars)	17.8	17.0	9.0	12.9	17.5	16.9	-12.4
Imports goods and services (Annual percent change, in U.S. dollars)	23.6	17.9	9.7	10.5	16.8	13.8	-14.9
Terms of trade goods (annual percent change)	0.8	-0.4	0.5	-0.4	-0.3	0.4	-0.4
Current account balance	5.5	7.5	7.3	9.3	7.6	7.5	7.0
Portfolio investment, net	-2.3	3.4	-3.4	4.1	-5.1	12.0	3.8
Foreign direct investment, net	-3.1	0.3	-1.6	-4.3	-4.0	-13.2	-8.5
Official reserves (in billions of euros)	17.1	15.9	17.3	18.2	18.3	20.5	21.97
Foreign assets of the banking sector (In billions of euros)	446	502	587	723	832	714	685
Foreign liabilities of the banking sector (In billions of euros)	396.9	447.1	506.0	605.9	737.4	593.8	597.8
Official reserves in months of imports	0.9	0.8	0.8	0.7	0.7	0.7	0.6
Exchange rate (per U.S. dollar, period average)	0.88	0.80	0.80	0.80	0.73	0.68	0.76
Financial market indicators							
Public sector debt (Maastricht definition)	52.0	52.4	51.8	47.4	45.5	58.2	59.9
Government bond yield	4.1	4.1	3.4	3.8	4.3	4.2	3.6
Government bond yield (real)	1.9	2.7	1.9	2.1	2.7	2.0	3.3
Stock market index	337.7	348.1	436.8	495.3	515.8	245.9	295.7
Spread of government bond yield with Germany	0.05	0.06	0.02	0.02	0.07	0.24	0.30

Sources: Data provided by the authorities; and IMF, *IFS*.

Table 5. Headline Support for Financial and Other Sectors and Upfront Financing Need
(As of August, 2009; in percent of 2008 GDP; average using PPP GDP weights) 1/

	Capital Injection	Purchase of Assets and Lending by Treasury 2/	Guarantees 3/	Liquidity Provision and Other Support by Central Bank	Upfront Government Financing 4/
	(A)	(B)	(C)	(D)	(E)
Advanced North America					
Canada	0.0	10.9	13.5	1.5	10.9
United States 5/	5.2	1.5	10.6	8.1	6.9
Advanced Europe					
Austria	5.3	0.0	30.1	…	8.9
Belgium	4.8	0.0	26.4	…	4.8
France 6/	1.4	1.3	16.4	…	1.6
Germany	3.8	0.4	18.0	…	3.7
Greece	2.1	3.3	6.2	…	5.4
Ireland	5.9	0.0	198.1	…	5.9
Italy 7/	0.6	0.0	0.0	…	0.6
Netherlands	3.4	11.2	33.6	…	14.6
Norway 8/	2.0	15.8	0.0	21.0	15.8
Portugal 9/	2.4	0.0	12.0	…	2.4
Spain 10/	0.8	3.9	15.8	…	4.6
Sweden 11/	1.6	4.8	47.5	13.9	5.2
Switzerland	1.1	0.0	0.0	24.9	1.1
United Kingdom 12/	3.9	13.8	53.2	19.0	20.0
European Central Bank	…	…	…	8.5	…
Advanced Asia and Pacific					
Australia	0.0	0.7	8.8	…	0.7
Japan 13/	2.4	11.4	7.3	1.9	0.8
Korea 14/	2.3	5.5	14.5	6.5	0.8
Average					
G-20	2.2	2.7	8.8	9.7	3.7
Advanced Economies	3.4	4.1	13.9	7.6	5.7
In billions of US$	1,160	1,436	4,638	2,804	1,887
Emerging Economies	0.2	0.3	0.1	13.5	0.4
In billions of US$	22	38	7	1,581	47

Sources: FAD-MCM database; Monetary Authorities; International Financial Statistics; and World Economic Outlook, April 2009.

1/ Amounts in columns A, B, C and E indicate announced or pledged amounts, and not actual uptake. Column D shows the actual changes in central bank's balance sheet from June 2007 to June 2009. While the expansion of central bank balance sheet is mostly related to measures aimed at enhancing market liquidity as well as financial sector support, it may occasionally have other causes. It may also not fully capture some other types of support, including that arising from changes in regulatory policies. For the euro zone countries, see the ECB line. Averages for column D include the euro zone as a whole.

2/ Column B does not include Treasury funds provided in support of central bank operations. These amount to 0.5 percent of GDP in the U.S., and 12.8 percent in the U.K.

3/ Excludes deposit insurance provided by deposit insurance agencies.

4/ This includes support measures that require upfront government outlays. It does not include recoveries from the sale of assets acquired through interventions.

5/ Estimated upfront financing need for 2009-10 is $990 bn (6.9 percent of GDP), consisting of the allocated amount under Troubled Asset Relief Program (TARP; $510 bn); Treasury purchases of GSE preferred stocks ($400 bn); and Treasury support for Commercial Paper Funding Facility ($50 bn).

6/ Support to the country's strategic companies is recorded under (B); of which €20 bn will be financed by a state-owned bank, Caisse des Depots and Consignations, not requiring upfront Treasury financing.

7/ It does not include the temporary swap of government securities for assets held by Italian banks undertaken by the Bank of Italy.

8/ Excluding asset accumulation in Sovereign Wealth Fund, the balance sheet expansion during the period was only 4.5 percent of GDP.

9/ A maximum amount of €20 bn (12% of GDP) is allocated to both the guarantee scheme and the reinforcement of core capital, with the latter not exceeding €4 bn.

10/ Cabinet approved guarantees for bank debt up to €100 bn. Another €100 bn can be extended, if needed. Bank Restructuring Fund, for which the current legislative framework provided €9 billion, could potentially be increased to up to €99 billion through debt issuance.

11/ Some capital injection (SEK50 billion) will be undertaken by the Stabilization Fund.

12/ Estimated upfront financing need is £289 bn (20 percent of GDP), consisting of Bank Recapitalization Fund (£56 bn), Special Liquidity Scheme (£185 bn) and financing for the nationalization of Northern Rock and Bradford & Bingley (£48 bn).

13/ Budget provides JPY 3,900 bn (0.8 percent of GDP) to support capital injection by a special corporation and lending and purchase of commercial paper by policy-based financing institutions.

14/ In 2009, KRW 8 trillion will be provided from the budget to support for SMEs.

Table 6. Netherlands: Summary of State Interventions in Major Financial Institutions

Institution	Type of State Intervention	Conditions Imposed	Restructuring	Background
ABN AMRO/Fortis	(i) Acquisition of Fortis' Dutch operations, including Fortis' share of ABN AMRO for €16.9 billion; (ii) a bridge loan to Fortis of €34 billion, (iii) state guarantee of €5 billion bond issue by Fortis, (iv) assumption of credit risk in a mortgage portfolio of €19 billion through a capital release instrument of €1.7 billion and mandatory convertible note of €0.8 billion. Additional capital strengthening actions of €4.4 billion, of which €1.4 billion is a debt to equity swap, is pending see letter Ministry of Finance to Dutch Parliament of 19 November 2009.	Restrictions on dividends, bonuses. Certain decisions by the Managing Board of ABN Amro/Fortis are likely to require approval by the State in her capacity as shareholder.	The restructuring involves consolidating the Dutch banking and insurance operations of former Fortis and ABN AMRO, divestment of most insurance activities, and reconstructing remaining banking operations under a new state-owned bank called ABN AMRO Bank N.V. Legal separation of original ABN AMRO parts to be owned by the Dutch state and RBS is expected to be complete at the end of 2010:Q1. The authorities intend to divest ABN AMRO Bank N.V. The creation of the envisaged merger of ABN Amro and Fortis requires the prior completion of the so-called EC Remedies transaction i.e. a sale of a sizeable Dutch SME portfolio to a third party. The capital consequences of this transaction have been taken into account during the assessment of the sufficiency of the additional €4.4 billion capital strengthening. Furthermore, talks are under way with several potential buyers of other divestible units, with Fortis Corporate Insurance NV already sold to Lloyds of London.	ABN AMRO was in the process of being acquired by a consortium including Royal Bank of Scotland, Fortis, and Santander. In October 2008, Fortis experienced financial problems and was rescued, divided and nationalized by the Benelux states. The Dutch authorities are now attempting to separate Fortis' Dutch banking and insurance operations from the rest of Fortis, separate Fortis'share of ABN AMRO, integrate the two, streamline and eventually privatize it.

Table 6. Netherlands: Summary of State Interventions in Major Financial Institutions

Institution	Type of State Intervention	Conditions Imposed	Restructuring	Background
ING Bank	(i) A capital infusion of €10 billion through 8.5 percent non-voting preferred shares; (ii) a facility under which 80 percent of profits or losses on ING's illiquid Alt-A MBS portfolio would be passed to the state for a fee; (iii) ING can issue up to €10 billion in government-guaranteed bonds (€2 billion placed in March 2009). ING has agreed with the Dutch state to facilitate early repayment of the capital injection, for which ING intends to repurchase €5 billion of Core tier 1 securities in December 2009. ING will pay additional fees for the IABF.	(i) Two Board members with veto rights over fundamental decisions on acquisitions, investments, capital raising and remuneration; (ii) scrap the final 2008 dividend; (iii) grant additional credits of €25 billion to the private sector; (iv) restrict bonuses; (v) pay a step-up coupon if it declares ordinary dividends.	Restructuring is based on the final restructuring plan filed with EC (published 26 October 2009). Besides the earlier this year presented Back to Basics programme to streamline the company and reduce risk, costs and leverage, ING will divest all insurance and management activities over time. ING will eleliminate double leverage and significantly reduce balance sheet. ING will also divest ING Direct USA. ING will create a new company in the Dutch retail market out of part of its current operations, by combining the Interadvies banking division (including Westland Utrecht and the mortgage activities of Nationale-Nederlanden) and the existing consumer lending portfolio of ING Retail. All restructuring will take place over the years 2010-2013. ING has plans for a €7.5 billion rights issue to finance repayment and cover charge for additional IABF payments.	ING faced significant financial problems stemming from global crisis, valuation losses, an over-extended business empire. Unlike ABN AMRO/Fortis transaction, ING remains a principally privately owned and managed bank.

Table 6. Netherlands: Summary of State Interventions in Major Financial Institutions

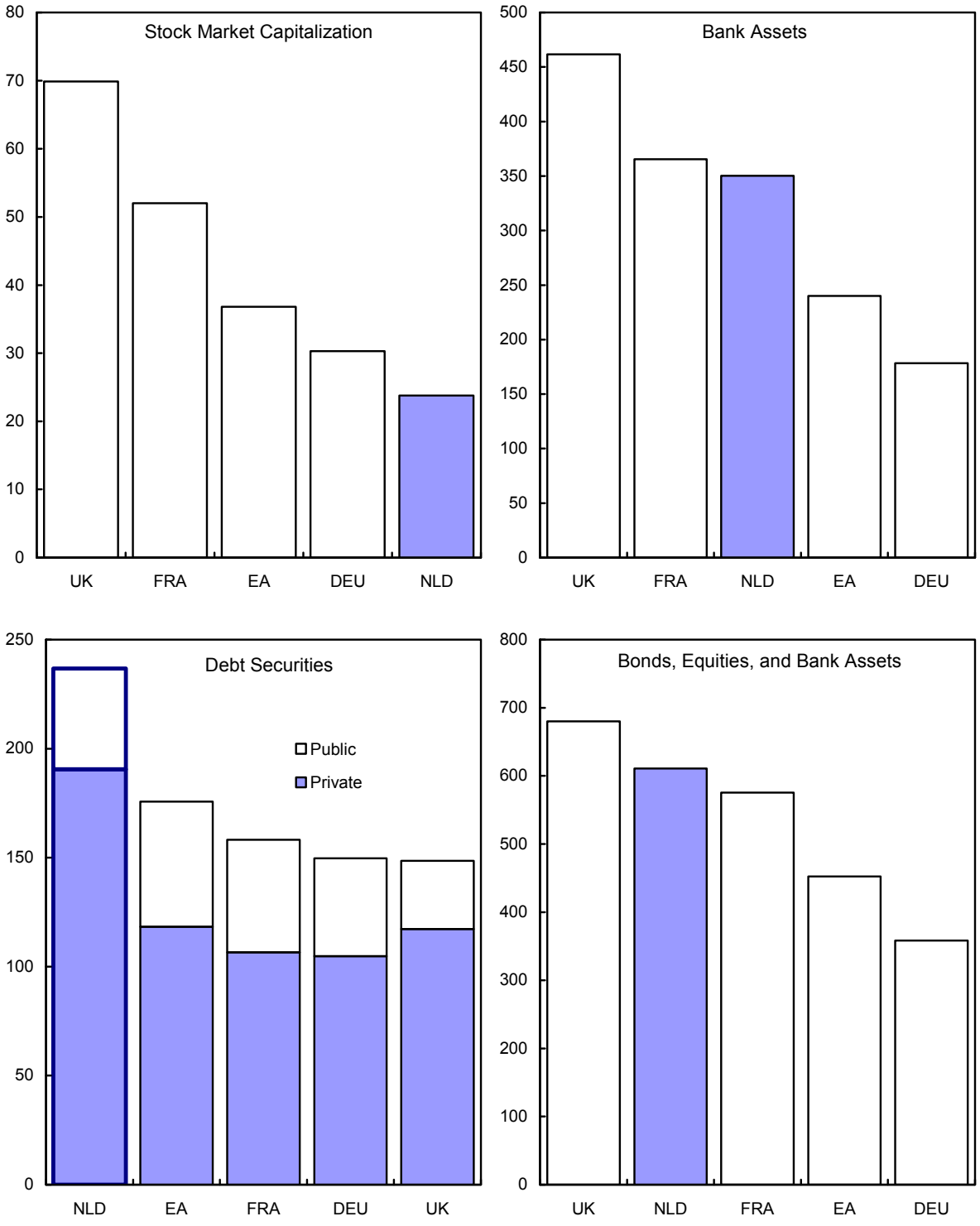
Institution	Type of State Intervention	Conditions Imposed	Restructuring	Background
SNS REAAL	(i) capital injection of €750 million by way of interest-bearing securities with equity-like features,	(i) Restrictions on executive compensation and dividends; (ii) incentives for early repayment similar to ING; (iii) a parallel capital infusion of €500 million by Stichting Beheer SNS REAAL.	No major restructuring intended.	
Aegon NV	Indirect capital infusion. The state will lend €3 billion to AEGON's largest shareholder, Association AEGON, which has 34 percent voting rights through common and preference shares. Association AEGON to purchase from AEGON 750 million non-voting securities at €4 per security, with the option to repurchase 250 million before the end of 2009 at 100 percent instead of 150 percent penalty (for repurchase after 2009).			

Table 7. Netherlands: Policy Responses to the Recommendation to Improve Labor Supply

Timeline	Policy Response
	General
2009	- Reduce Unemployment Fund (AWF) premium for employees to 0 percent
	Women
2008	- Increase supplementary combination tax credit (ACK)
2008	- Establish Part-time Plus Task Force
2009	- Convert supplementary combination tax credit into income-based supplementary combination tax credit (IACK)
2009	- Phase out transferability of general tax credit over 15-year period
	Older workers
2009	- Convert premium exemption into a targeted temporary premium discount for older unemployed workers
2009	- Introduce bonus for continuing to work after reaching the age of 62
	- Increase statutory retirement age from 65 to 67
	Vulnerable groups
2008	- Implement employment scheme to facilitate the creation of jobs for those receiving benefits under the Work and Social Assistance Act (‘participation jobs’)
2008	- Conclude agreements with the 39 regions of the Regional Registration and Coordination Centers (RMCs) to address school drop-out levels
2009	- Introduce a stricter definition of ‘appropriate work’ in the Unemployment Insurance Act (WW)
2009	- Introduce earned income tax credit
2009	- Introduce temporary wage cost subsidy for long-term unemployed under the age of 50 (STAP)
2009	- Introduce integrated services at the regional Locations for Work and Income
2009	- Introduce budget for municipalities to promote labor market participation
2009	- Introduce Investment in the Young Act (WIJ)
2010	- Adjust income benefits for young disabled persons under the Invalidity Insurance (Young Disabled Persons) Act (Wajong)

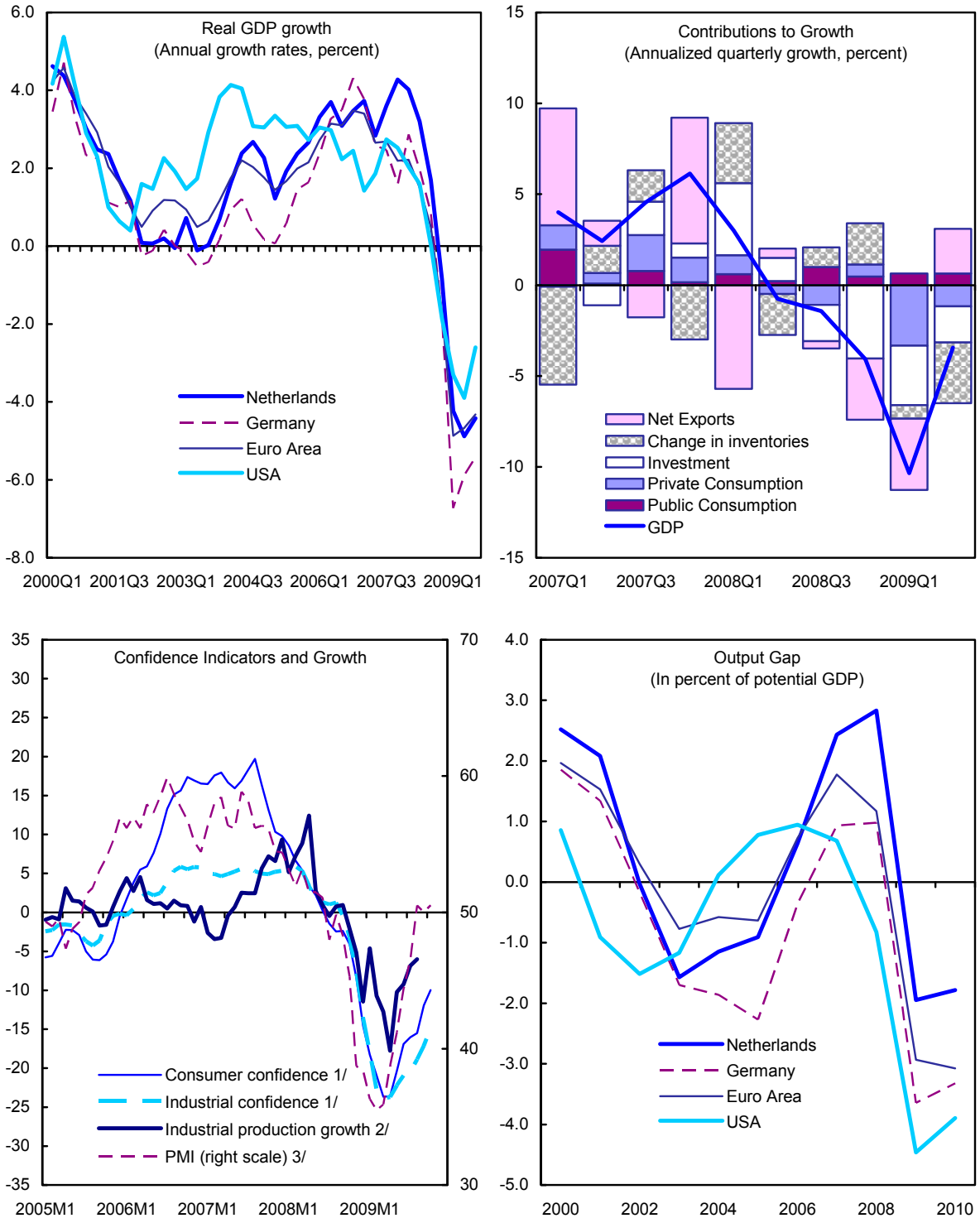
Source: Annual Progress Report 2009, The Netherlands, in the context of the Lisbon Strategy.

Figure 1. Netherlands: International Comparisons of Financial Markets
(2008, in percent of GDP)



Source: IMF, Global Financial Stability Report.

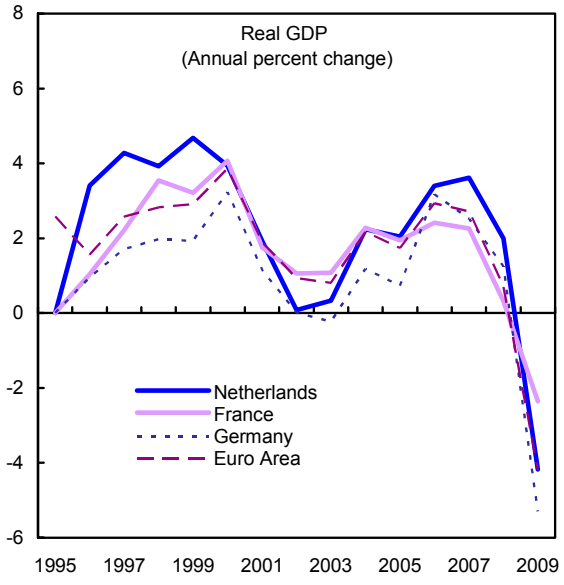
Figure 2. Netherlands: Real Sector Developments



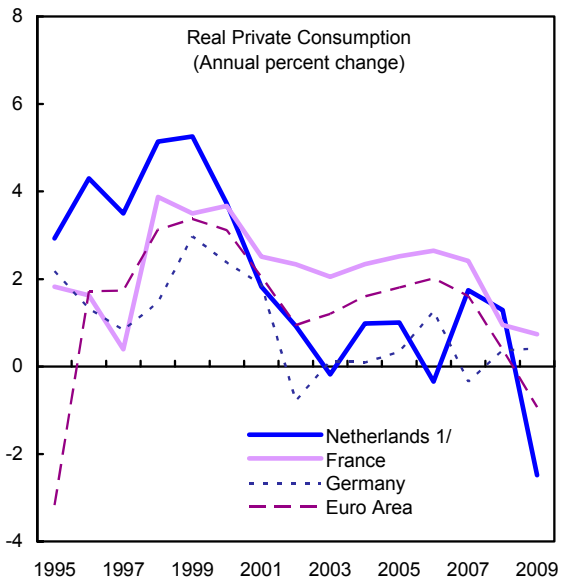
Sources: Haver Analytics; IMF, WEO; and IMF staff estimates.
1/ Percent balance.
2/ Percent.
3/ PMI: Manufacturing (SA, 50+=Expansion).

Figure 3. Netherlands: Comparative Economic Performance

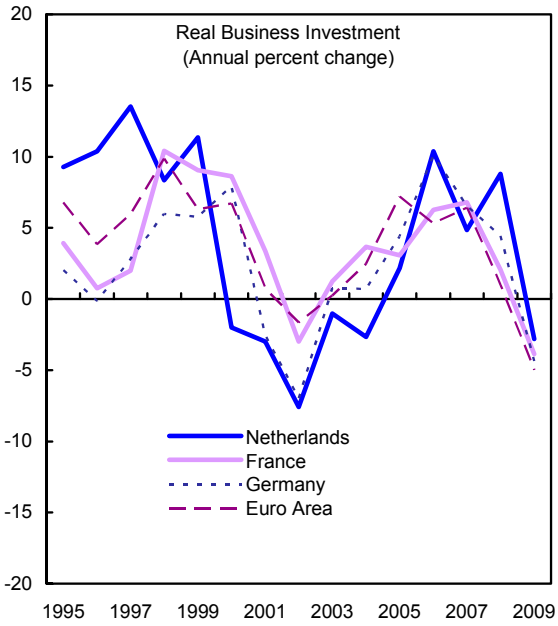
Read GDP in the Netherlands declined sharpy as in other euro area countries...



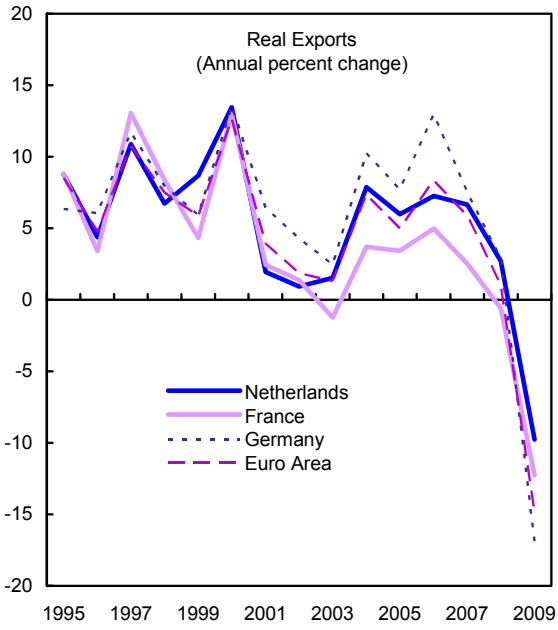
...with private consumption declining more than the euro area average...



... and business investment....



..and exports declining declining in line with the euro area average

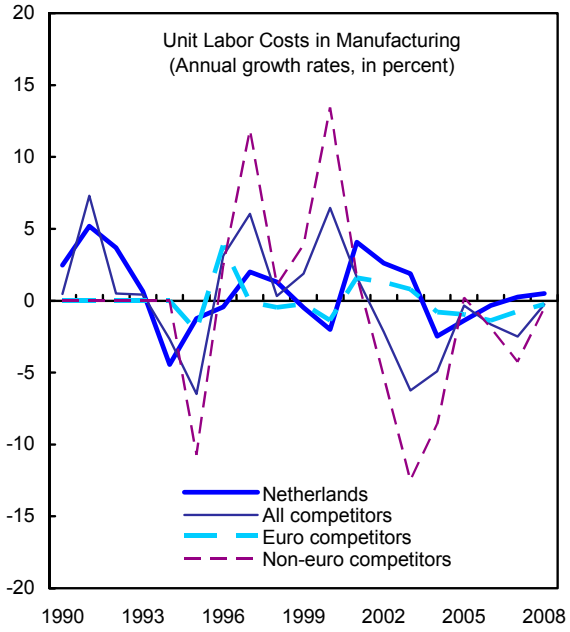


Sources: Global Insight; Netherlands authorities; and IMF, WEO.

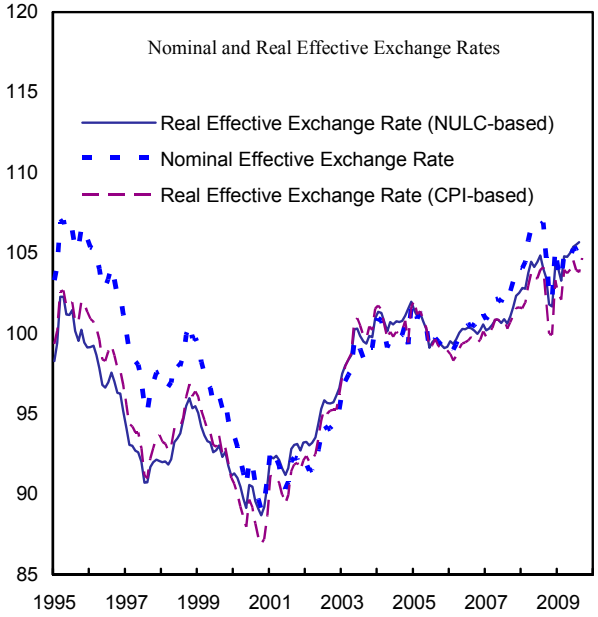
1/ The consumption growth in 2006 is adjusted for the health care reform. The reform of the health care system at the beginning of 2006 resulted in a shift of health care expenditures of about euro 8.0 billion (1.5 percent of GDP) from private to public consumption, distorting private consumption downward by about 3 percentage points in 2006.

Figure 4. Netherlands: External Competitiveness

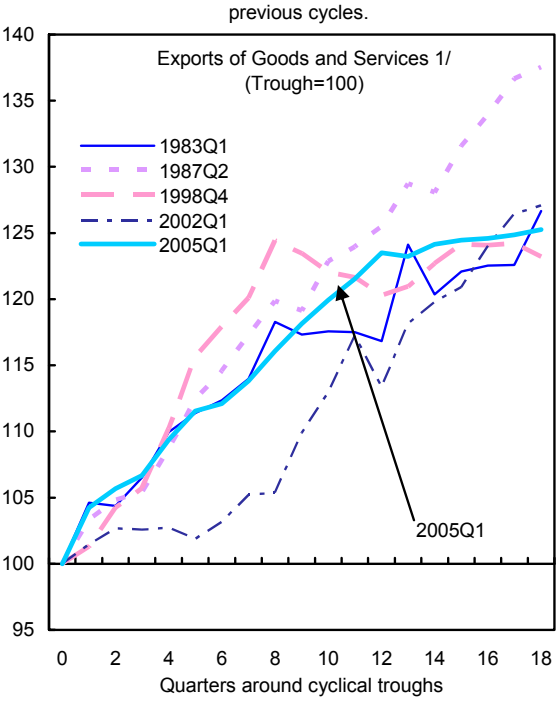
The unit labor costs have been falling or roughly flat in recent years..



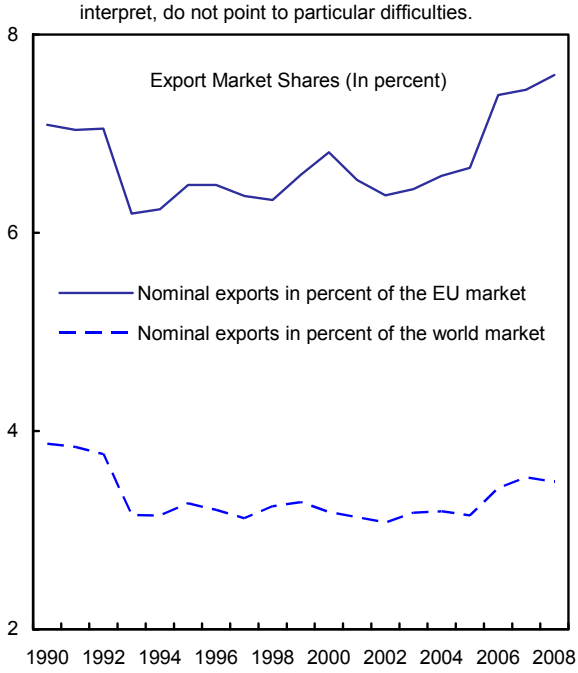
Nominal exchange rate appreciation has reversed the recent real depreciation.



Exports are performing roughly on par with previous cycles.



Aggregate market share data, though difficult to interpret, do not point to particular difficulties.

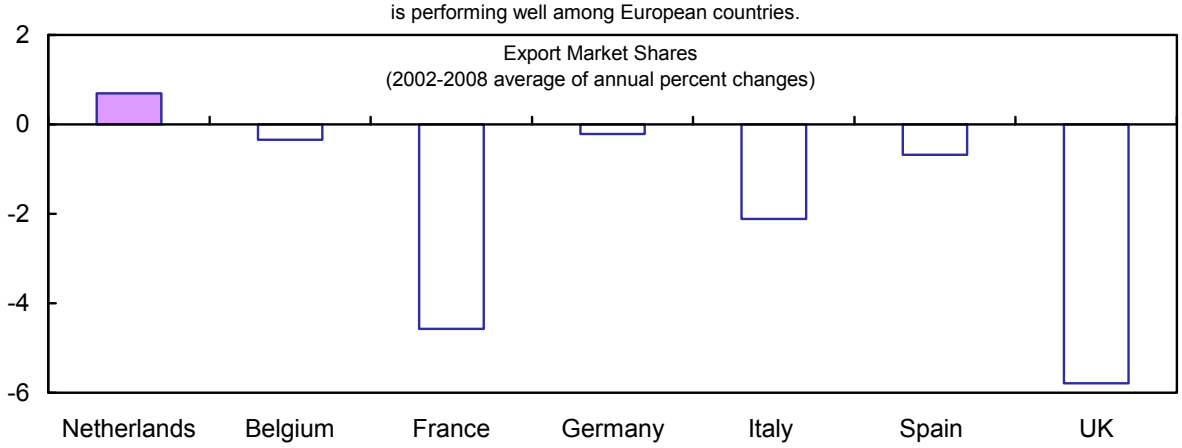


Sources: CPB; OECD, Economic outlook; IMF, IFS, DOT, and WEO.

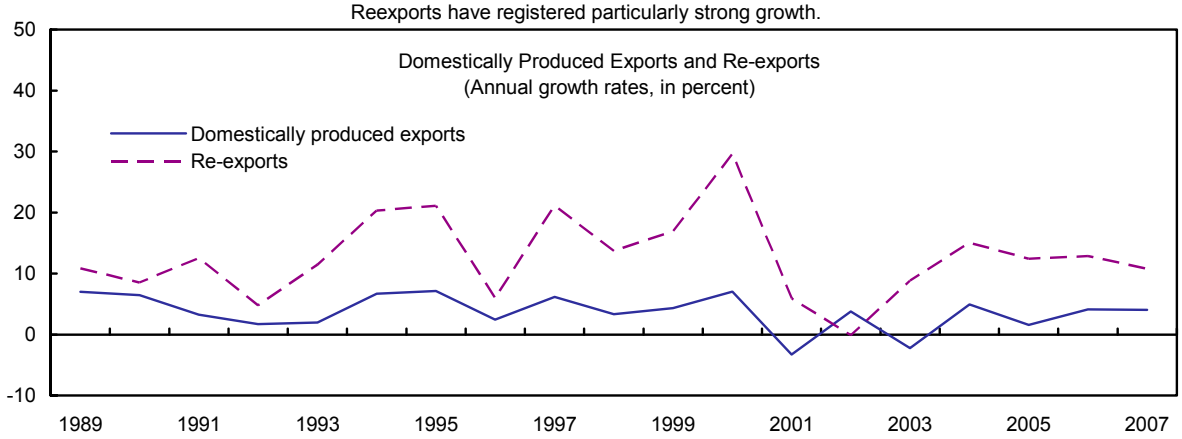
1/ Troughs were identified using the methodology of Harding and Pagan (2002), "Dissecting the Cycle: A Methodological Investigation," Journal of Monetary Economics.

Figure 4. Netherlands: External Competitiveness (concluded)

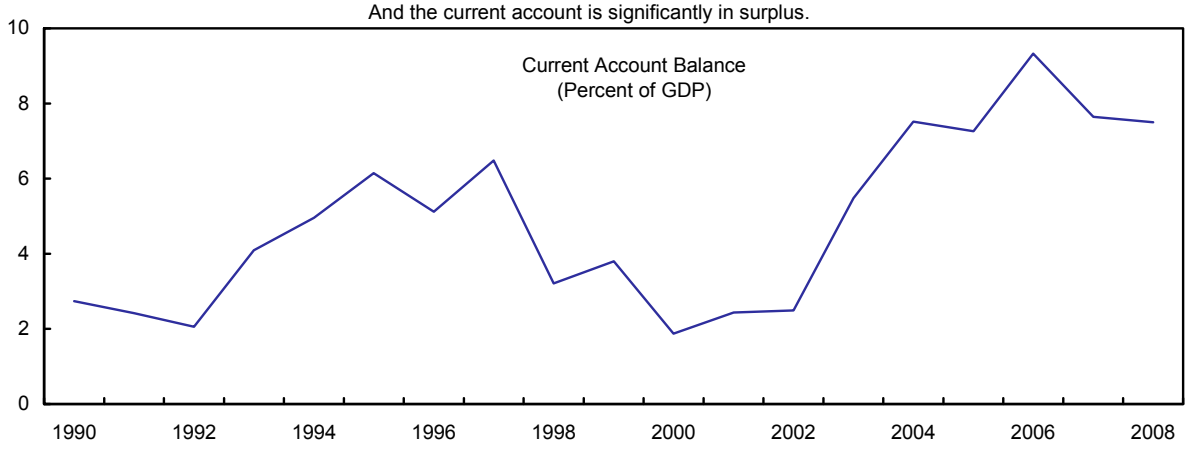
Export market share has tended to decline in many countries, partly reflecting the expansion of exports from many emerging market countries such as China & India. On a comparative basis, the Netherlands is performing well among European countries.



Reexports have registered particularly strong growth.

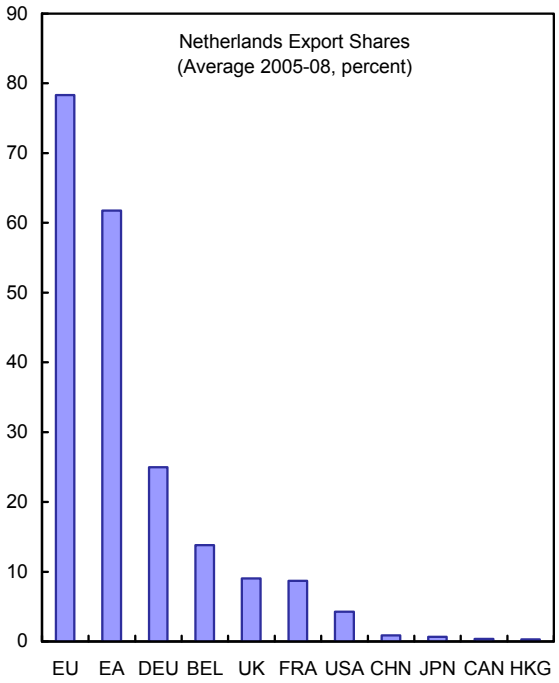


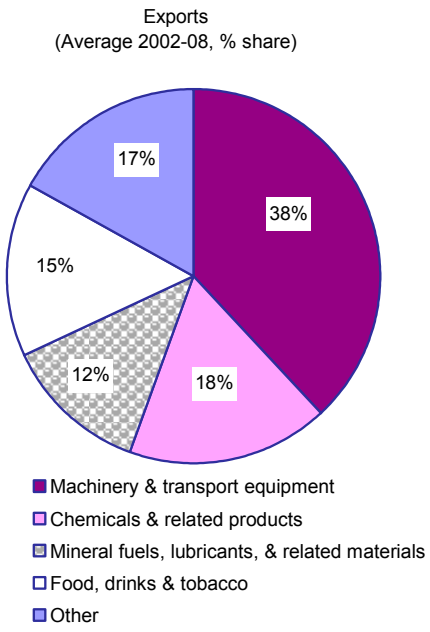
And the current account is significantly in surplus.

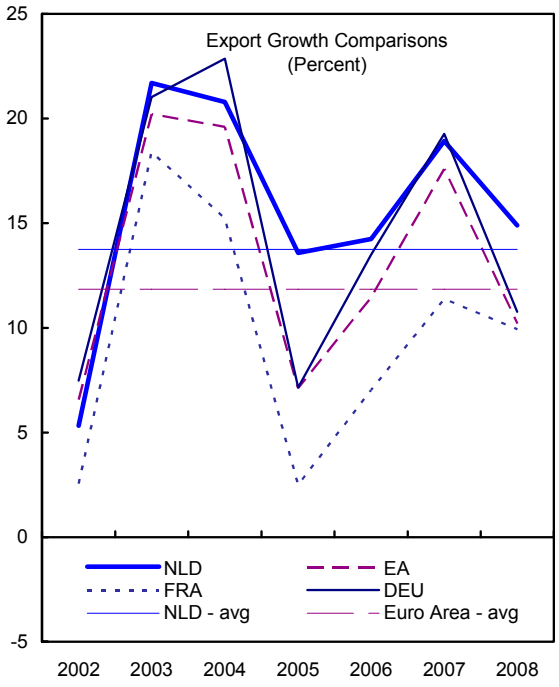


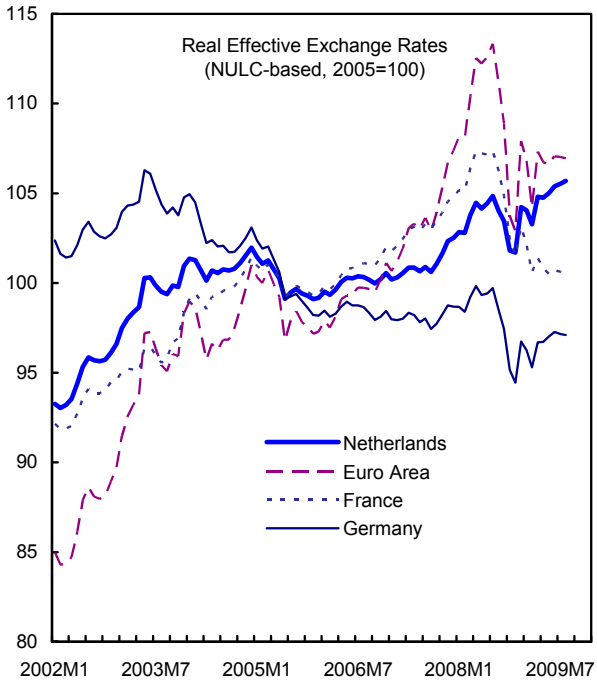
Sources CPB; IMF, IFS, DOT, and WEO.

Figure 5. Netherlands: Trade Openness and Spillovers



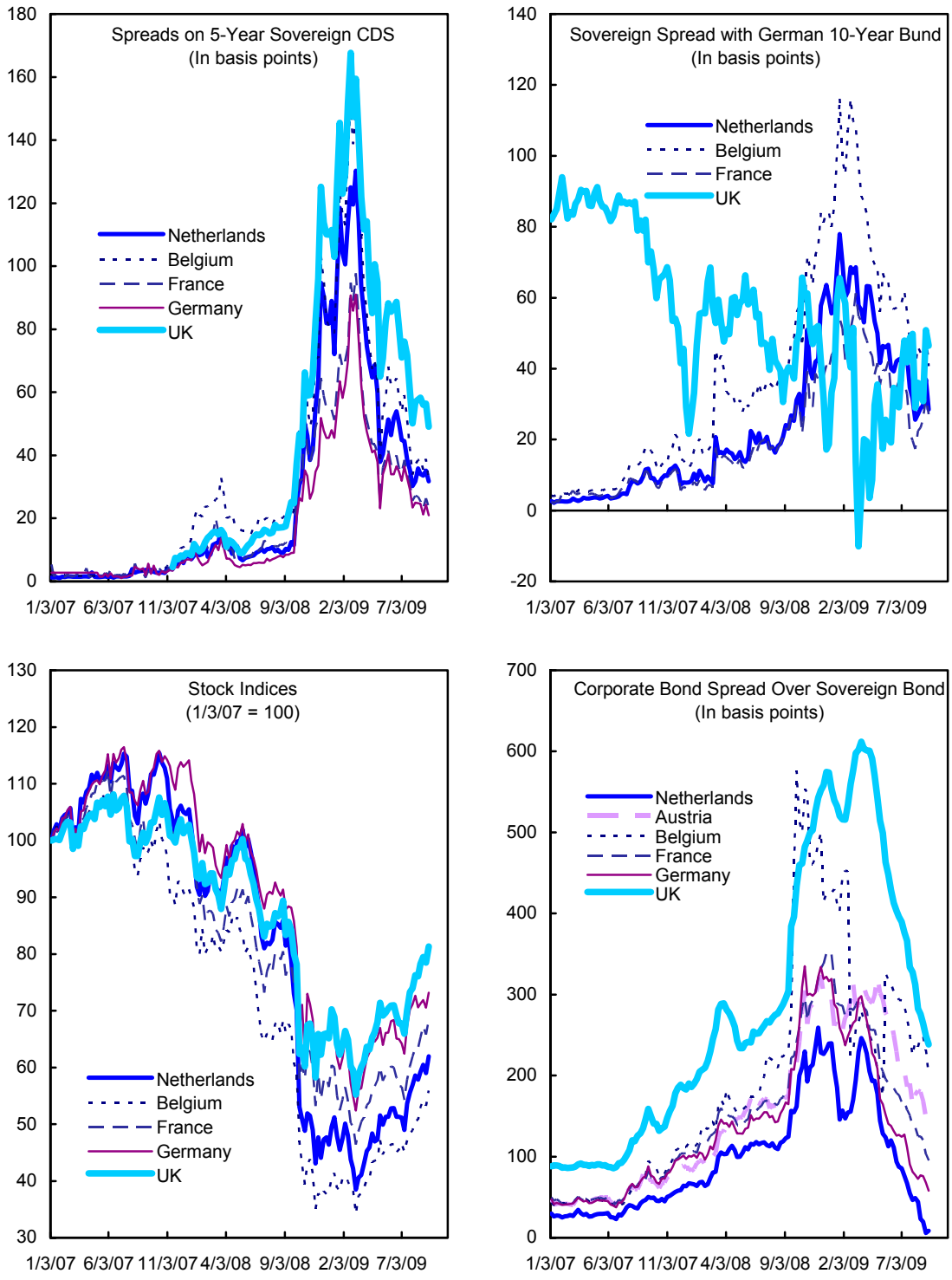






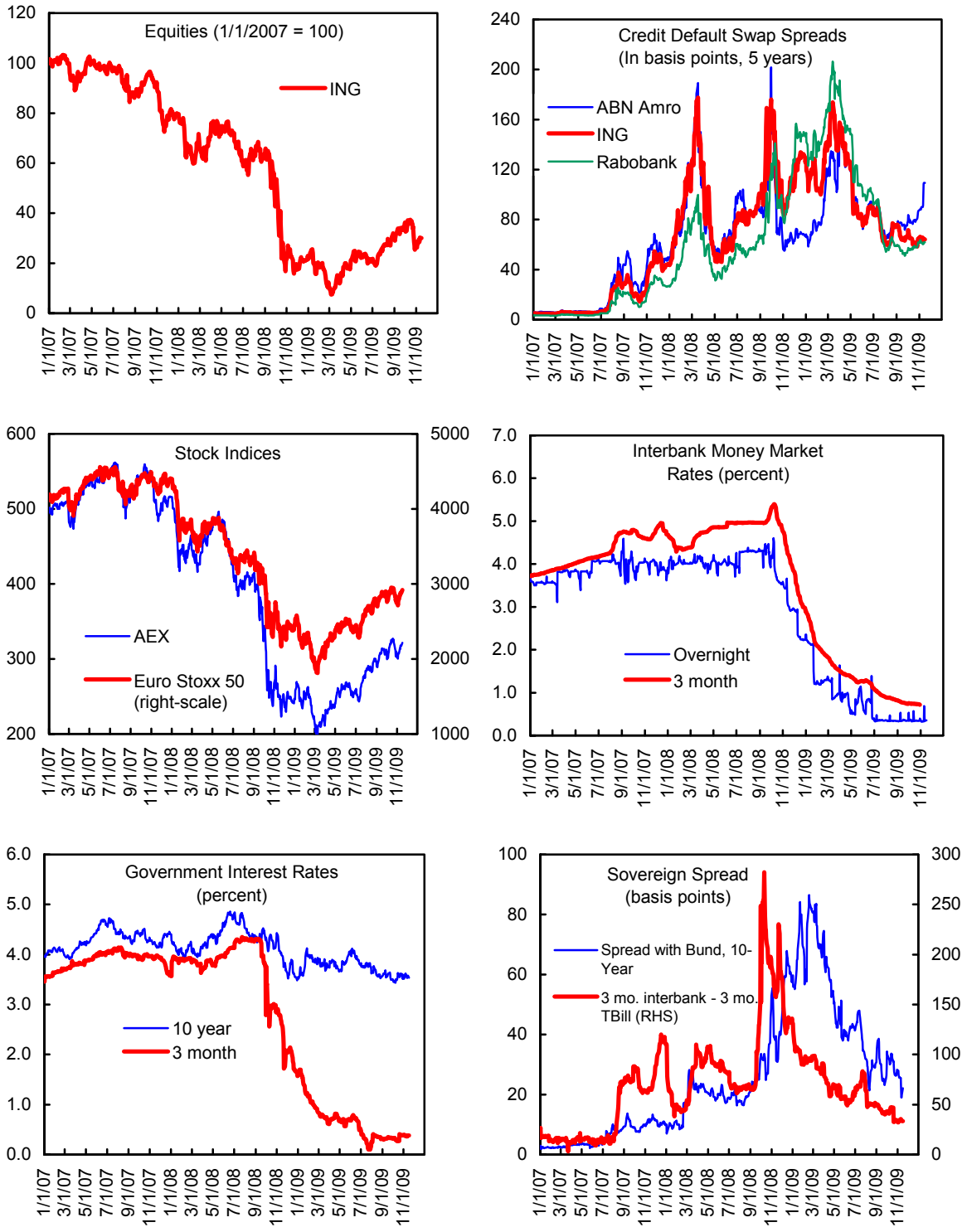
Sources: EIU and IMF; DOT and IFS.

Figure 6. Netherlands: Comparative Financial Indicators



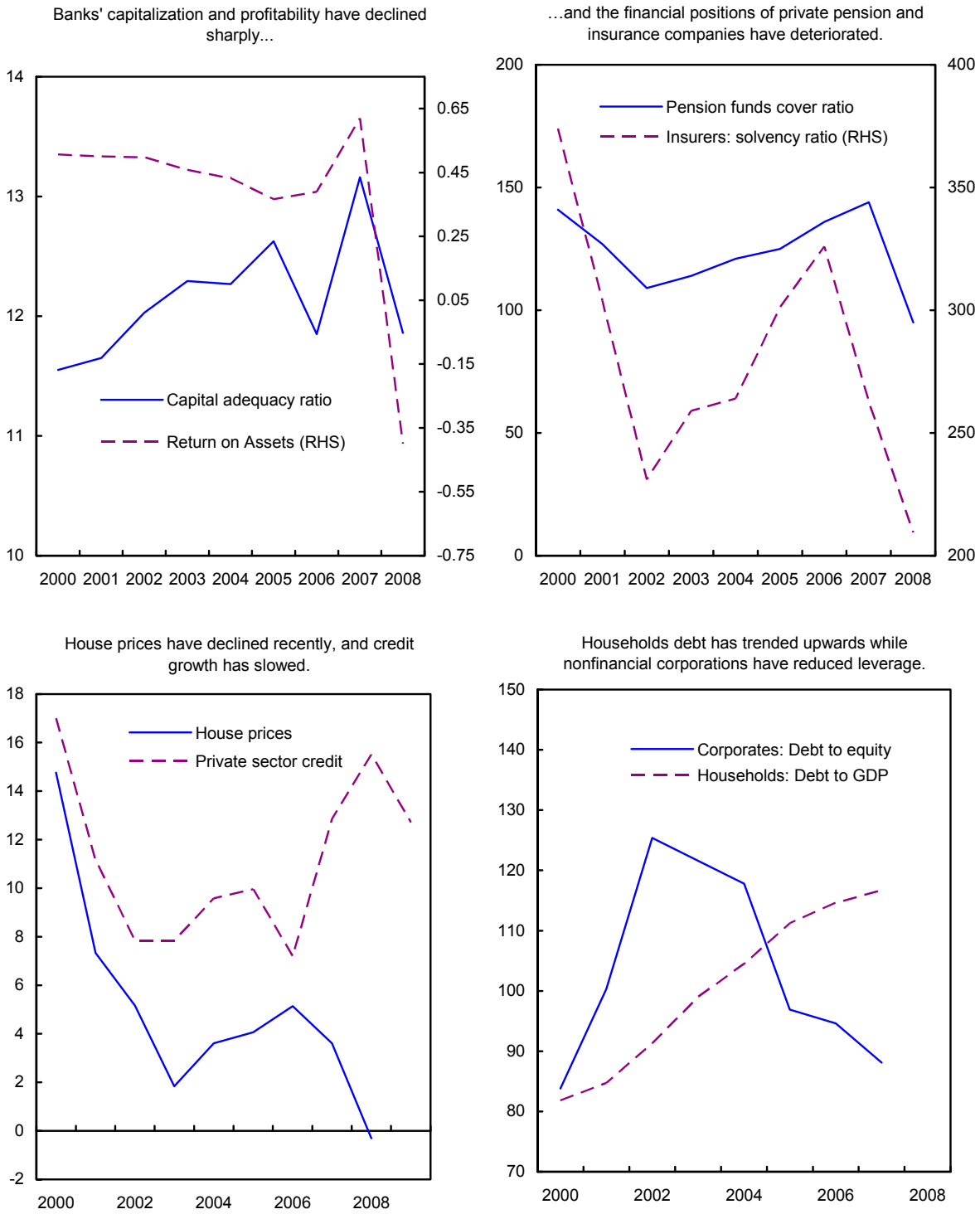
Source: Thomson Financial/DataStream.

Figure 7. Netherlands: Financial Indicators



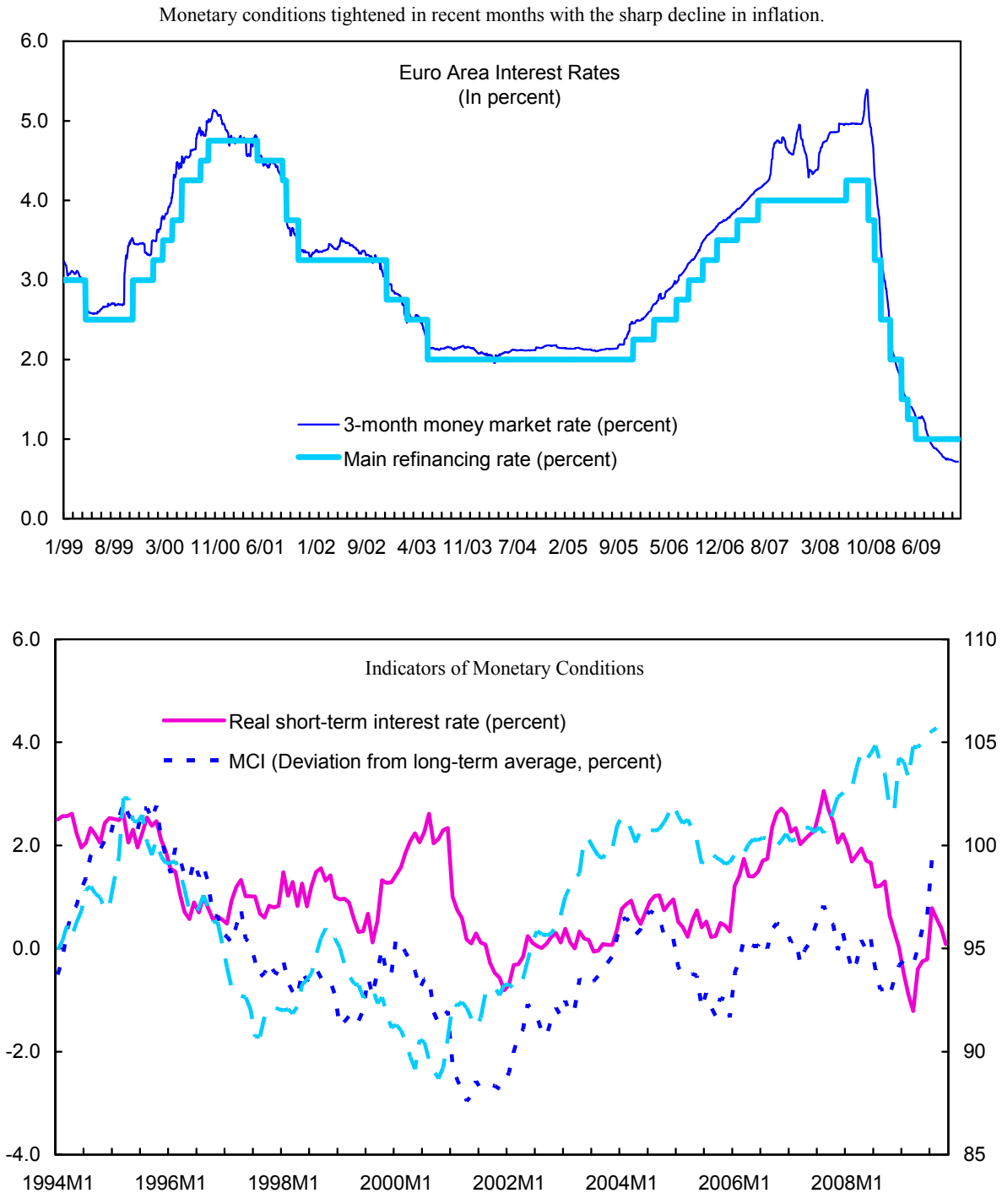
Source: Thomson Financial/DataStream and Bloomberg.

Figure 8. Netherlands: Financial Stability Indicators
(In percent)



Sources: Global Insight; data provided by the authorities; and IMF, IFS.

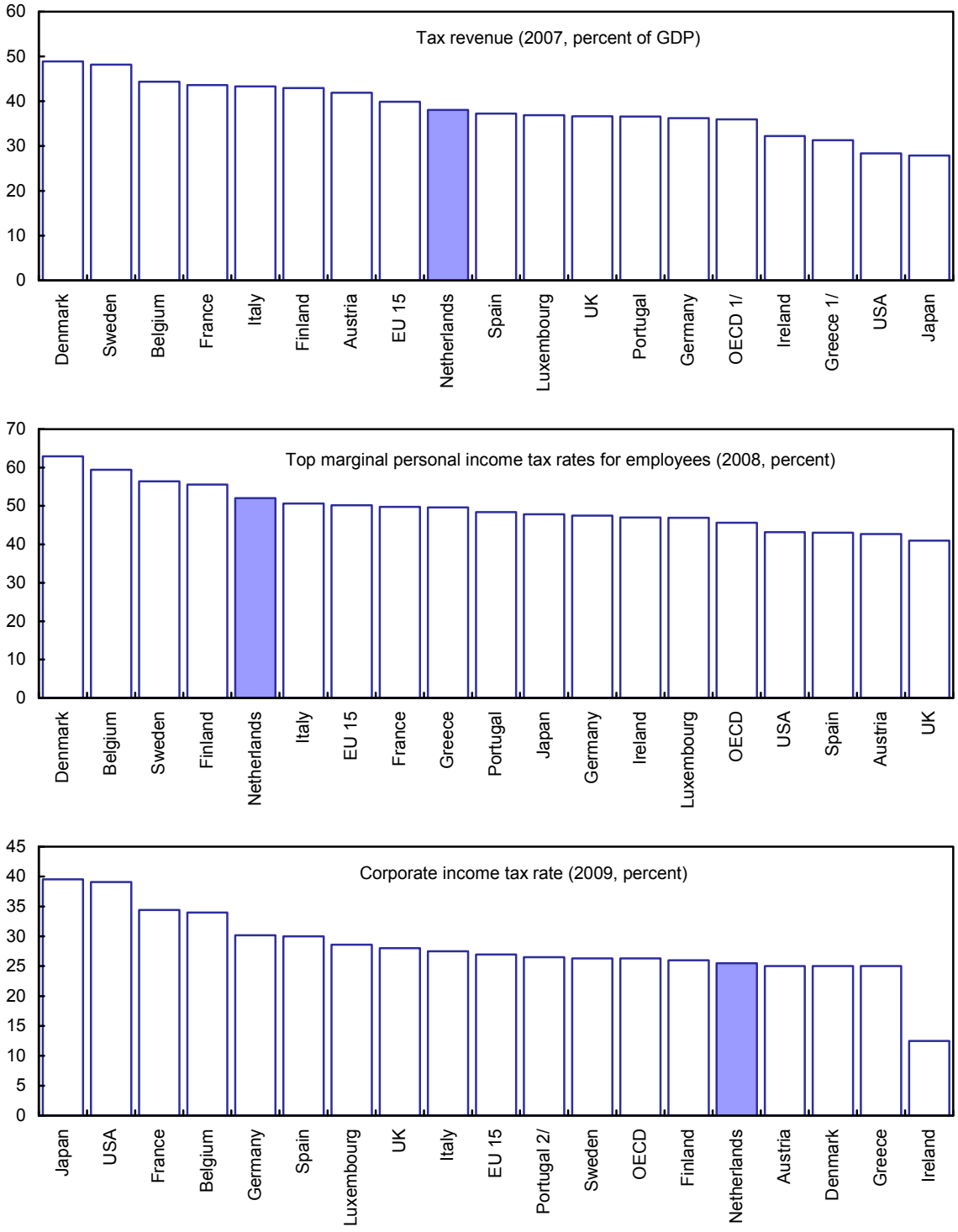
Figure 9. Netherlands: Monetary Conditions



Sources: Global Insight; and IMF, IFS.

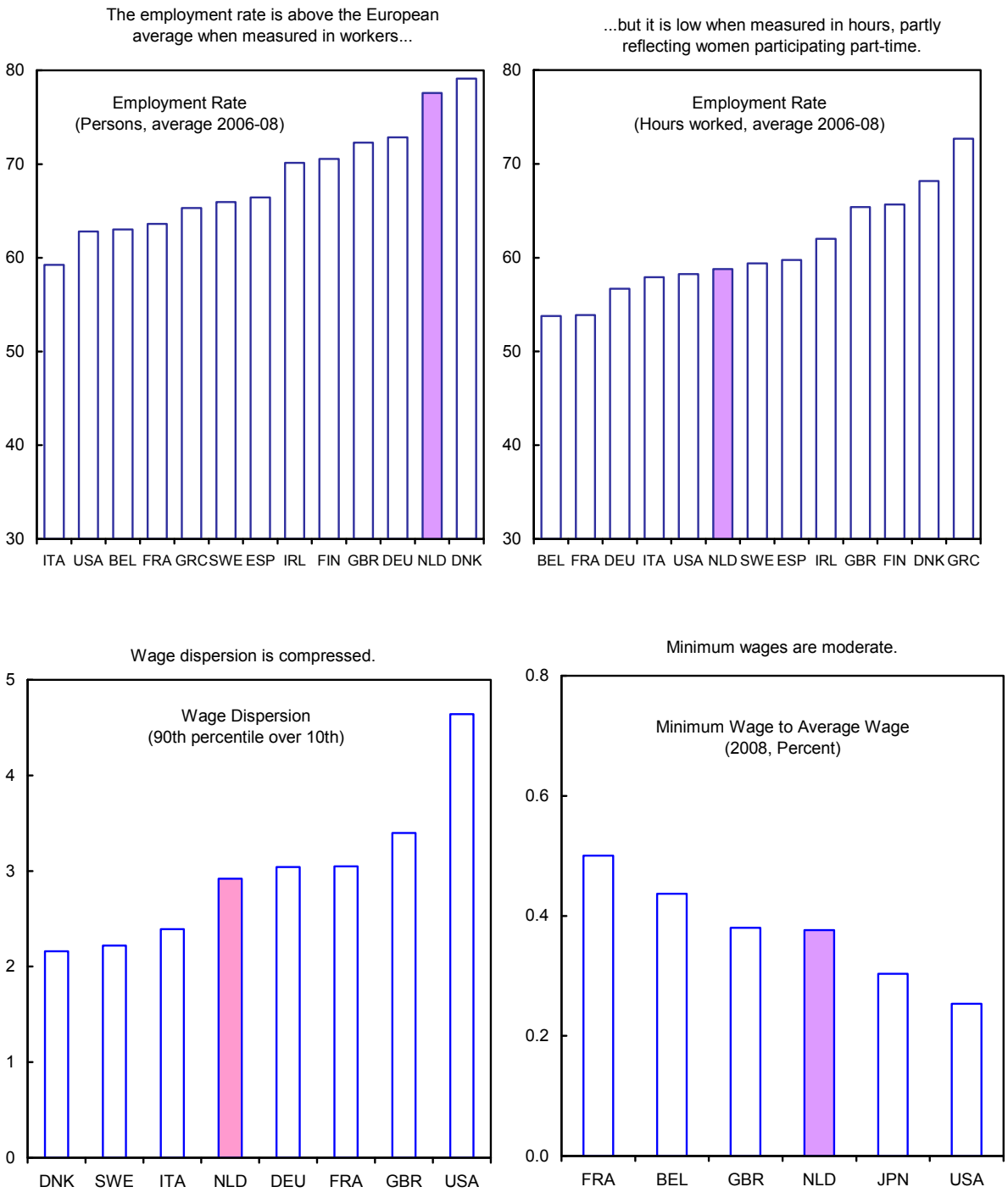
1/ An increase implies less accommodative conditions.

Figure 10. Netherlands: Tax Comparisons



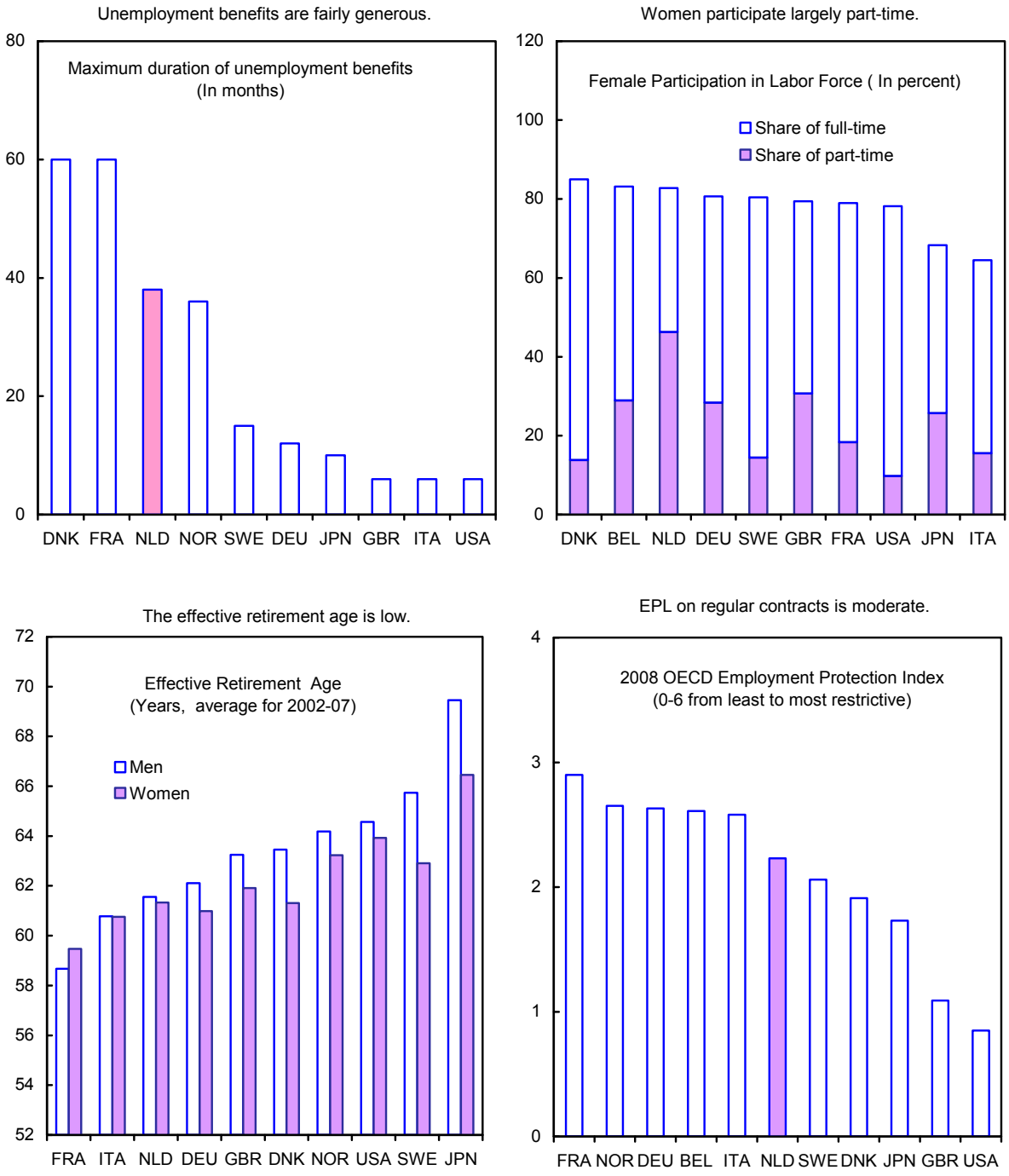
Source: OECD.
1/ 2006 data.
2/ 2008 data.

Figure 11. Netherlands: Selected Labor Market Indicators



Source: OECD.

Figure 11. Netherlands: Selected Labor Market Indicators (concluded)



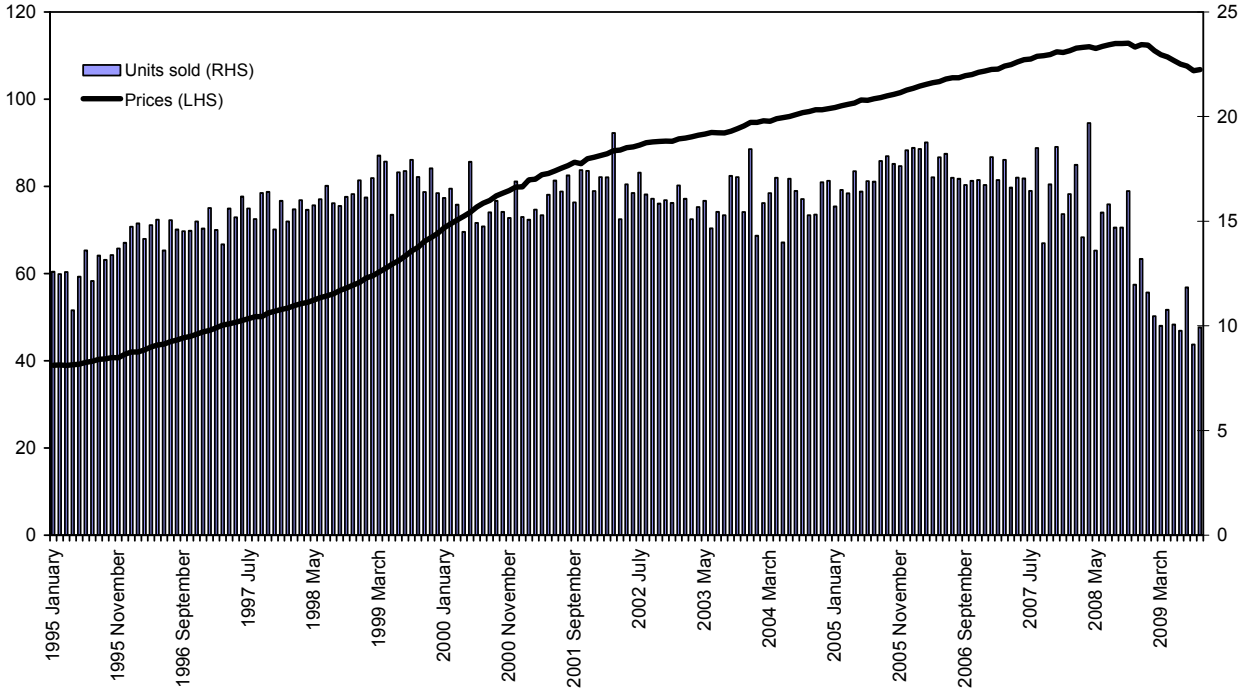
Source: OECD.

ANALYTICAL NOTE 1. DUTCH HOUSING MARKETS: WHAT WENT UP WILL COME DOWN?[1]

1. **After an extended period of rapidly increasing prices and vigorous activity, residential real estate markets in the Netherlands have started cooling down.** House prices fell 5.3 percent in September 2009 compared to the same period last year while the number of units sold fell by a third (Figure 1-1). If history is any guide, the current downturn might turn out to be rather severe. Since the 1970s, Dutch house prices have gone through one major cycle that peaked in the second quarter of 1978. That downturn lasted 29 quarters and, when the trough was reached in the third quarter of 1985, real house prices were 50 percent down relative to their peak (Figure 1-2).

2. **How long will the current downturn last and how severe will it be?** To answer the question, this note summarizes various models that have been used in previous studies to assess house price movements in the Netherlands and compares these models to understand the key differences.

Figure 1-1. Netherlands: Housing Market Activity, 1995-2009 1/

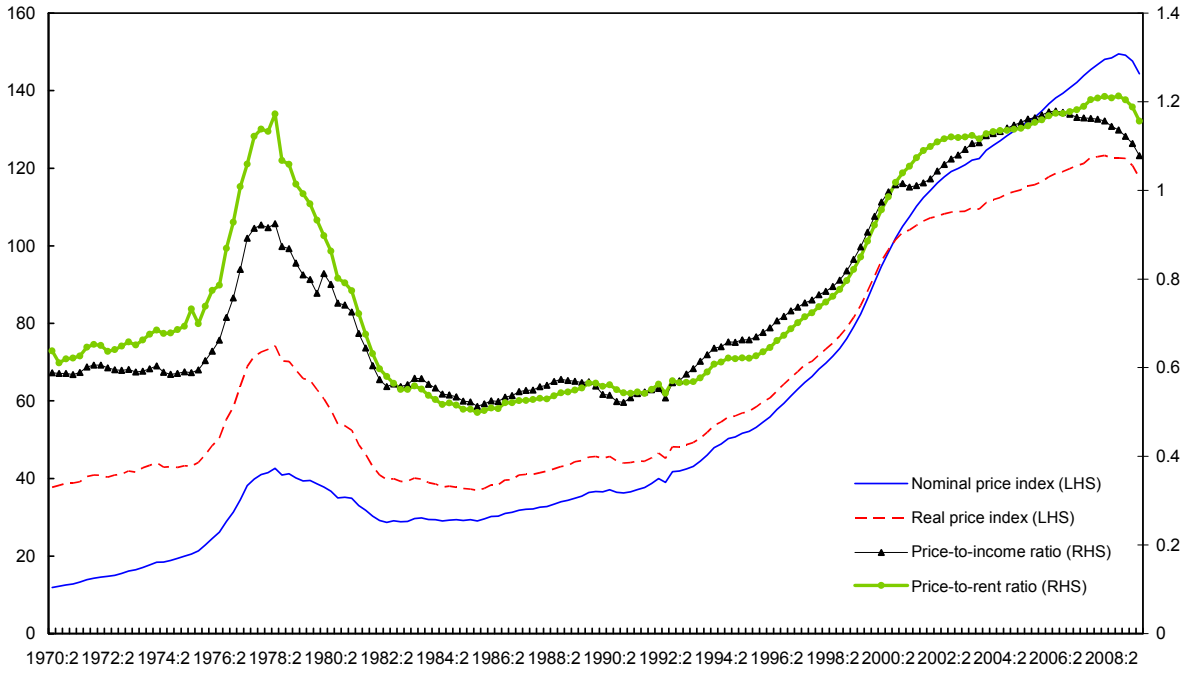


Source: Statistics Netherlands/Dutch Land Registry Office.

1/ Prices are measured by a transaction-based index, with base year 2005, for all owner-occupied dwellings. Units sold are expressed in thousands. Both series are at monthly frequency and are seasonally adjusted.

[1] Prepared by Deniz Igan.

Figure 1-2. Netherlands: House Prices, Rent, and Income, 1970-2009



Source: OECD.

A. Models of House Prices

3. **The acceleration of house prices in the 1990s is not out of sync with income and rent developments.** A common rule-of-thumb used to assess whether the observed movement in house prices is in line with underlying economic factors ('fundamentals') looks at price-to-income (PIR) and price-to-rent (PRR) ratios. Application of this rule reveals that the episode in the late 1970s was characterized by a steep increase followed by a sharp decline in both metrics. While house prices have accelerated in the 1990s, the increases in PIR and PRR have been more modest, suggesting that at least part of the increase in prices can be explained by the movement in fundamentals.

4. **Use of income and rent as benchmarks reflects the rationale behind the two main strands of house price models: housing as a consumption good and as an asset.**

- In the first model, housing is treated as a durable consumption good and house price determination is analyzed in a demand-supply framework. Supply factors such as land availability and zoning restrictions are generally assumed to be rather inelastic in the short run, and hence the supply curve slopes upward. Demand factors, e.g. credit availability and income, are assumed to be subject to non-stationary shocks. As a result, house prices are not stationary either and, in this simple supply-demand framework, house prices and demand-side factors would be in a cointegrating relationship the exact characteristics of which depend on the elasticities of supply and

demand. To put it more precisely, the inverse demand function for housing services is given by

$$\log h^d = -\alpha \log p + \beta \log y + z$$

where h^d is housing services demanded, p is real house price, y is real disposal income, and z is a vector of other demand factors. Demand factors basically include variables affecting intertemporal decision-making as housing is durable. In particular, expectations about future earnings (permanent income), ease of consumption-smoothing through credit availability, and costs/benefits associated with owning a home (user cost) are important components that could generate a shift in demand. The user cost takes into account the interest paid on mortgage, taxes, maintenance, and capital gains, and is obtained as

$$uc = p(i + \delta + t - \Delta p^e / p)$$

where i is the real after-tax mortgage interest rate, δ is the rate of depreciation, t is the property tax rate, and $\Delta p^e / p$ is the expected rate of house price appreciation. The real estate literature commonly uses past rates of house price appreciation as a proxy for expected house price appreciation, namely adaptive expectations.

For simplicity, the supply function is assumed to be inelastic.[2] Hence, housing services supplied are given by

$$\log h^s = \log \overline{h^s}$$

where $\overline{h^s}$ is the housing stock. In equilibrium, the market-clearing house price is

$$\log p = \frac{\beta \log y - \log \overline{h^s} + z}{\alpha}.$$

- The second model borrows from the finance literature to value housing as an asset. In the absence of frictions and credit restrictions, the no-arbitrage condition should hold, implying that returns to housing, i.e., market rent, r, should equal user cost of owning. More precisely,

[2] In the case of the Netherlands, this is a common assumption due to high population density, limited undeveloped land, and strict zoning laws. Empirical support for this assumption is provided by van Rooij (1999) and Swank et al. (2002), who find that price elasticity of housing supply is considerably low.

$$\frac{r}{p} = i + \delta + t - \frac{\Delta p^e}{p}.$$

5. **While these two models are akin, their implementations may deliver different results.** Any empirical analysis implementing either the "price-to-income" or "price-to-rent" models would use similar sets of variables, which most obviously contain income and interest rates. While many studies rely on this general framework, variations that may seem unimportant at first glance might lead to very different assessments of the deviation of observed prices from fundamentals. Thus, we focus next on a group of recent studies to highlight such differences and discuss their sources.

B. Is There a Housing Bubble?

6. **Recent studies have arrived at different conclusions on the existence and extent of misvaluation in the Dutch residential real estate market.** The Netherlands Bureau of Economic Policy Analysis (CPB) reported an overvaluation of 10 percent as of 2003.[3] Using data up to 2004, an IMF country report concluded that there was no significant deviation from fundamentals.[4] The OECD arrived at a similar conclusion, namely that the probability of Dutch house prices reaching a peak and starting to decline in 2006 was low.[5] The CPB published an update of their analysis in 2008 showing that any (over-) valuation gap had disappeared as of 2007.[6] In contrast to these assessments of no misalignment, the April 2008 *World Economic Outlook* (WEO) report deemed that the Netherlands was second among advanced economies in terms of house price overvaluation.[7] Table 1-1 summarizes the methodologies and original findings of these studies. As anticipated, all use a subset of the variables discussed above, yet the estimations of misvaluation range from 0 to 30 percent.

[3] CPB Document No. 81.

[4] IMF CR No. 05/225.

[5] OECD WP No. 488.

[6] CPB Document No. 200.

[7] IMF WEO April 2008.

Table 1-1. Is There a Dutch Housing Bubble?

	Methodology	Data	Conclusion
CPB Document No. 81 (2005) and No. 200 (2008)	Real house prices modeled as a function of real disposable income, real long-term interest rate, real other financial assets of households, and total housing stock	1980-2007; annual	Overvaluation of 10 percent in 2003 shrunk to 0 in 2007
OECD WP No. 488 (2006)	Probability of real house prices peaking modeled as a function of the lagged moving average of long rate, moving average of real house price increase, and the share of residential investment in GDP	1970-2005; quarterly	Probability of a real house price peak happening in 2006 less than 10 percent
IMF CR 05/225 (2005)	Real house prices modeled as a function of real disposable income and real mortgage interest rate	1974-2004; quarterly	No sign of deviation from fundamentals at the end of 2004
IMF WEO (April 2008)	House price growth modeled as a function of affordability (lagged ratio of house prices to disposable income), growth in disposable income per capita, short-term interest rates, credit growth, and changes in equity prices and working-age population	1970-2007; quarterly	Cumulative house price gap (increase not explained by fundamentals) around 30 percent

Sources: CPB, OECD, IMF.

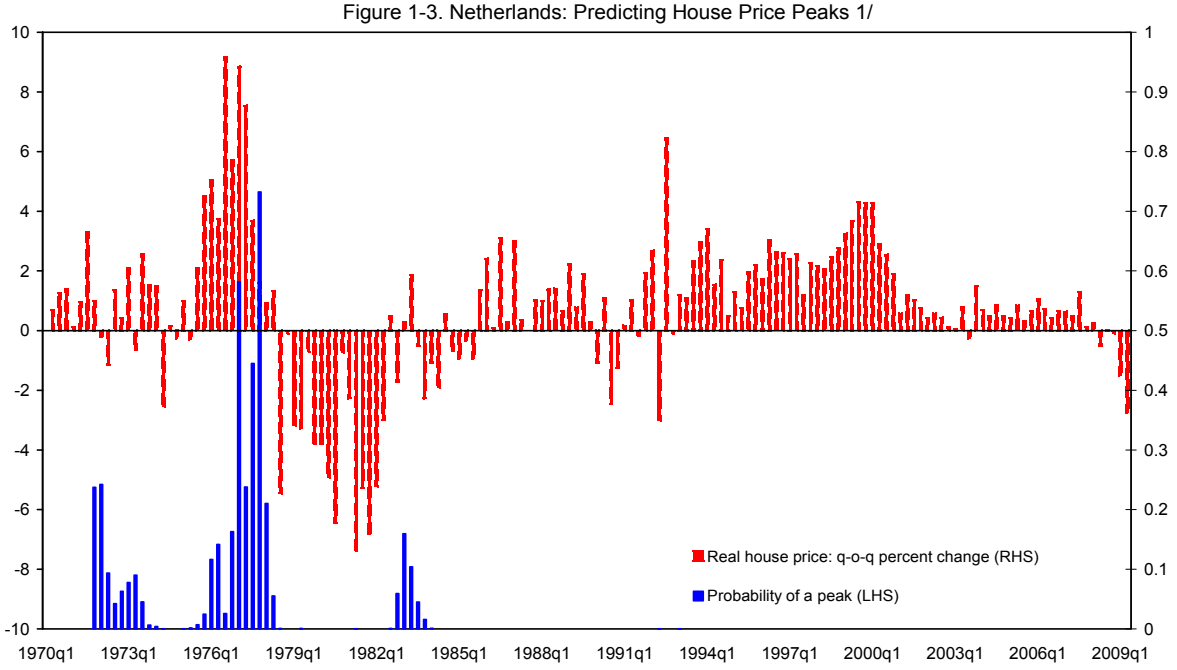
7. **To assess the current house market situation and understand the reasons for the different results, we update these studies with the most recent data.** Our first aim is to assess whether the ongoing downturn has changed any earlier findings of overvaluation significantly. To this end, we consider in the next paragraph the OECD's "probability of a house-price-peak" model and in paragraph 9 the three other models that explain house prices directly. Our second aim is to determine the key sources underlying the differences in the reported conclusions. Since we use the same data source to construct our database spanning a common period at the same frequency (from 1970Q1 to 2009Q2) and apply the same estimation technique, at least to the three "direct house price" models, the results would only differ because of the choice of variables. These are presented in paragraph 10.

8. **Estimates of the probability of house prices peaking in 2010 indicate that the risk of a pending house price correction is small** (Figure 1-3)**.** Adopting the methodology in OECD WP No. 488 (2006), we model the probability of the house price cycle reaching a peak through the course of the subsequent year as a function of the lagged moving average of the nominal long-term interest rate, moving average of real house price appreciation, and the share of residential investment in GDP. More precisely, we estimate the following equation using probit:

$$prob(peak_t) = c + b_1 \frac{3}{lir_{t-5} + lir_{t-6} + lir_{t-7}} + b_2 \frac{\Delta hp_t + \Delta hp_{t-1}}{2} + b_3 \frac{rinv}{gdp} + e\,.$$

The peak in the late 1970s is picked out fairly well, while there is no sign of a peak in the most recent period. Obviously, this finding should be taken with a grain of salt given that there is only one peak in the sample period, which could limit the performance of the model.[8] Yet, it is interesting to notice that the robust house price appreciation in the second half of the 1990s had already decelerated by the early 2000s. Hence, overall, the "probability of a price peak model" suggests rather strongly that the Dutch housing market is going through a soft landing rather than being at the verge of a collapse.

Figure 1-3. Netherlands: Predicting House Price Peaks 1/



Sources: IMF staff estimates.

1/ A peak occurs when real house prices fall over a period of at least six quarters after having registered a cumulative increase of at least 15 percent over a period of six quarters.

[8] In the original study, it is also pointed out that the model performs better in countries with more volatile house price dynamics.

9. **Turning to the three other models, they indicate that the current downturn has already wiped out any overvaluation that might have existed before.** Indeed, all three models suggest that there might be slight undervaluation in the housing market as of 2009Q2. On the other hand, gap estimates, while remaining close from one model to the other, include both positive and negative values when base period is set in the late 1990s and early 2000s. In other words, it is possible that house prices might be undershooting in the short run while they appear to be mostly in line with fundamentals from a long-run perspective.[9]

10. **Also, the reason why the three models have delivered different conclusions in past studies seem to lie crucially on the choice of the base year.**[10] Table 1-2 shows the gap between the actual and predicted house prices, both cumulative and at a specific point in time, for the three models of interest under a range of base period choices and two different estimation techniques (OLS and VECM). Assessment of misalignment is highly sensitive to the base period one considers, not only across models but also for the same model. There is more variation from one model to the other when cumulative gaps are calculated while, at a given point in time, the prediction errors from the three models are rather close to each other. Figure 1-4 demonstrates the importance of the base year choice further and explains why WEO finds significant overvaluation by looking at the cumulative gap since the late 1990s while CPB reports slight overvaluation disappearing a couple of years ago.

11. **While there may not be a unique "correct" base year for Dutch house prices, the early seventies used in this study are a plausible base**. To provide guidance in such a choice, one option is to take a long-term perspective and evaluate cumulative changes from the start of the analysis period. In that case, taking 1971 as the base year, the estimates of misalignment range from -4 to 1.2 percent. The other option is to evaluate the trend in house price changes: there has been a marked deceleration since the early 2000s, which might suggest that house prices have reached an equilibrium level. Taking 1999 as the base year gives estimates ranging from -18.7 to 3.7 percent. To achieve robustness to the choice of base year, one could calculate the average gap estimate over various periods, e.g., the average misalignment from 1998 to 2001 ranges from -12.1 to -2.4 percent. All in all, to select the very early seventies as a base, as done in this study, appears justified.

12. **The finding that there is no significant overpricing in Dutch house prices can be reconciled with the examination of PIR and PRR through interest rate movements.** By taking interest rate movements into account, in addition to other variables, the econometric models can explain much of the changes in house prices. Then, intuitively, when PIR and PRR are adjusted for these movements by dividing with the mortgage interest rate, the

[9] These results may change slightly once the preliminary data for 2009 are revised.

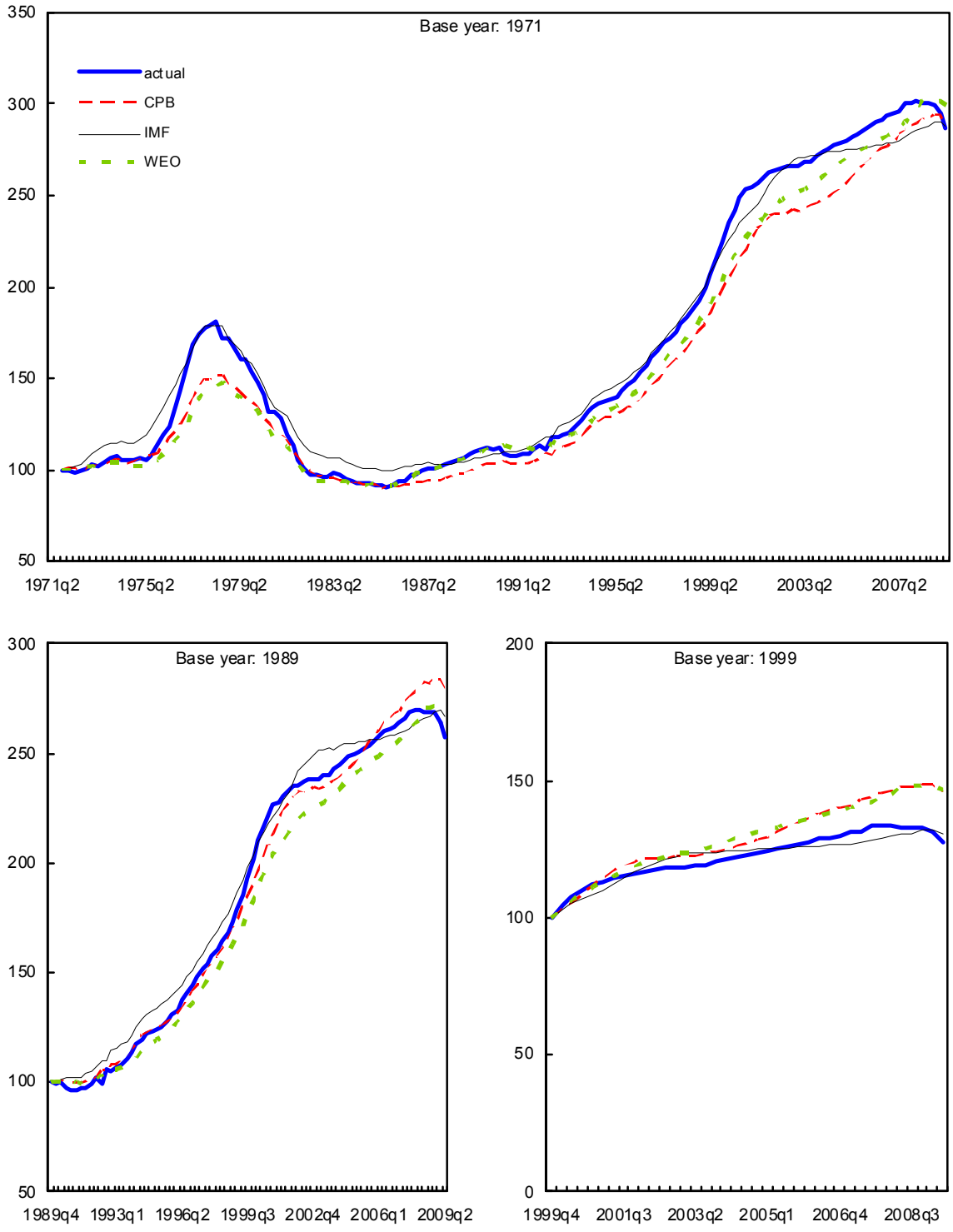
[10] Recall that we have already ruled out all differences coming from data source and coverage issues as we use the same series to estimate the models.

Table 1-2. Misalignment in House Prices

	Cumulative gap between actual and predicted house prices							
	OLS				VECM			
	Period start date				Period start date			
	1971	1979	1989	1999	1971	1979	1989	1999
CPB Document No. 81 (2005) and No. 200 (2008)	-0.98	-6.09	11.58	-18.69	0.36	-6.50	3.40	-5.35
IMF CR 05/225 (2005)	1.17	11.50	62.36	0.93	0.03	4.58	-3.51	-2.61
IMF WEO (April 2008)	-1.58	-9.39	24.93	3.73	-3.97	-13.27	-4.18	-13.11
	Gap between actual and predicted house prices							
	OLS				VECM			
	Point in time (second quarter)				Point in time (second quarter)			
	2004	2006	2008	2009	2004	2006	2008	2009
CPB Document No. 81 (2005) and No. 200 (2008)	-0.99	-1.77	-0.92	-5.12	-0.08	0.12	-0.73	-1.02
IMF CR 05/225 (2005)	0.26	-0.10	-1.06	-4.35	0.29	0.55	-1.14	-1.73
IMF WEO (April 2008)	-0.34	0.26	-0.85	-3.17	-0.73	-0.14	-2.67	-1.94

Source: IMF staff estimates.

Figure 1-4. Sensitivity of Overvaluation Assessment to Base Year Choice

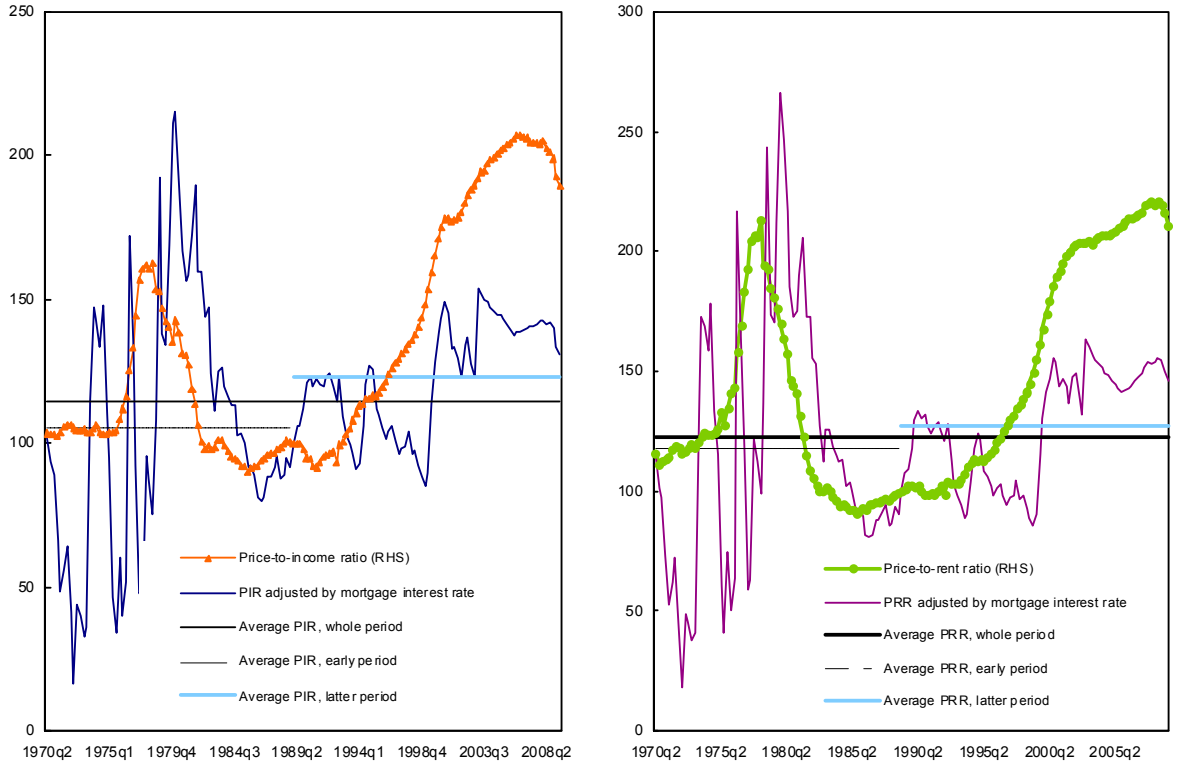


Source: IMF staff calculations.

increase in the 1990s should become less pronounced. Indeed, looking at "adjusted" PIR and PRR, the "bubble" in the second half of 1970s is still detectable while the recent rise is less dramatic and actually the ratios are flattened in the 2000s (Figure 1-5).

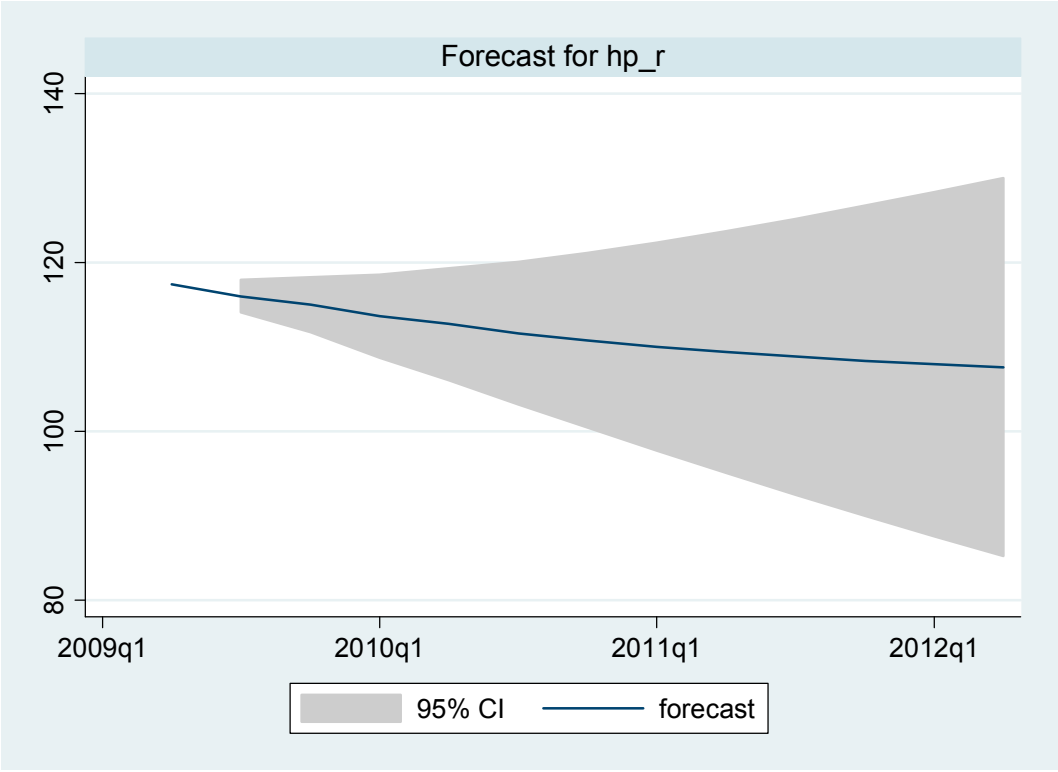
13. **Expectations of future price increases, while important, are not the main driver of house prices, further weakening bubble arguments.** In simple OLS regressions, inclusion of past house price appreciation explains a large proportion of the changes in PIR and PRR. A common argument in the real estate literature is that house price appreciation expectations are adaptive, which implies that expectations could lead to a bubble. To assess whether this is the case, we estimate a vector-error correction model with three variables: real house prices, real disposable income, and mortgage interest rates. By enforcing a cointegrating relationship, this estimation takes into account the adjustment necessary to return to long-run equilibrium when short-run deviation occurs because of e.g. expectations of high house price growth. The dynamic forecasts suggest a gradual stabilization, in line with the other models used, rather than an abrupt turn in house prices (Figure 1-6).

Figure 1-5. Adjusting Price-to-Income and Price-to-Rent Ratios by Mortgage Interest Rates



Source: OECD, IFS, and IMF staff calculations.

Figure 1-6. Dynamic Forecast of Real House Prices



Source: IMF staff etimates.

C. Risks from a Potential House Price Correction

14. **House price cycles have been shown to lead cycles in credit and real activity, hence house price gyrations might have important implications for growth.**[11] From a historical perspective in the Netherlands, the house price boom in the 1970s and the following bust in the first half of 1980s could give some indication on how large the impact on real economic activity of a house price correction can be. From peak-to-trough (1978Q3-1985Q3), real house prices fell 50 percent, or 9.4 percent at an annualized average rate. During the same period, average annualized real GDP growth was 1.4 percent compared to 3 percent in the other periods. Particularly striking was the sharp slowdown in private consumption expenditures, which virtually remained flat while the average growth rate over the rest of the periods was 2.8 percent. In the current episode, house prices have declined 4.8 percent by 2009Q2 from their peak in 2008Q1.

15. **However, based on VAR analysis, a correction in house prices in the Netherlands is expected to inflict only moderate harm on economic activity** The extent to which house price developments pose risks for the overall economy can be analyzed in a multivariate

[11] See, for instance, Igan et al (2009).

framework to take feedback effects into account. Estimation of a six-variable VAR (including real GDP, private consumption, residential investment, CPI inflation, nominal short-term interest rate, and real house prices) suggests that the impact on real GDP of a one-standard-deviation drop in house prices is likely to be small (around 0.2 percentage points) and short-lived (with real GDP bouncing back in less than a year).

16. **Findings from VARs on other developed countries suggest that the Netherlands is actually one of the least vulnerable economies.** The estimated potential impact on real GDP of a 10 percent decline in house prices is the fourth smallest after Austria, Italy, and Norway. The value added share of the construction sector and the contribution of residential investment to GDP are low in the Netherlands relative to other OECD countries, which could explain why economic activity is estimated to be affected less by a negative house price shock.

17. **Yet, several other factors, not included in the VAR, are not favorable for the Netherlands and may augment its vulnerability to house price shocks.** Such factors include, the indebtedness of households and the banking sector's (and other financial institutions') exposure to real estate. Household indebtedness has been increasing, with outstanding mortgages and consumer credit growing from 100 percent of GDP to 185 percent of GDP between 1998 and 2008. The highly leveraged household balance sheets, in addition to wealth effects, could amplify the overall impact on consumption and income of house price shocks.[12] On the financial sector side, a growing portion of residential mortgages have been securitized and held in special purpose vehicles (Figure 1-7). This could create risks that may spread through the financial system quickly. Finally, mutually reinforcing feedback effects from mortgage lending to house prices could also exacerbate the consequences for the macroeconomy of a house price shock. Indeed, macro-financial linkages are assessed to be strong in the Netherlands (see AN2) and lending conditions have tightened significantly following the financial crisis and the downturn.

D. Conclusion

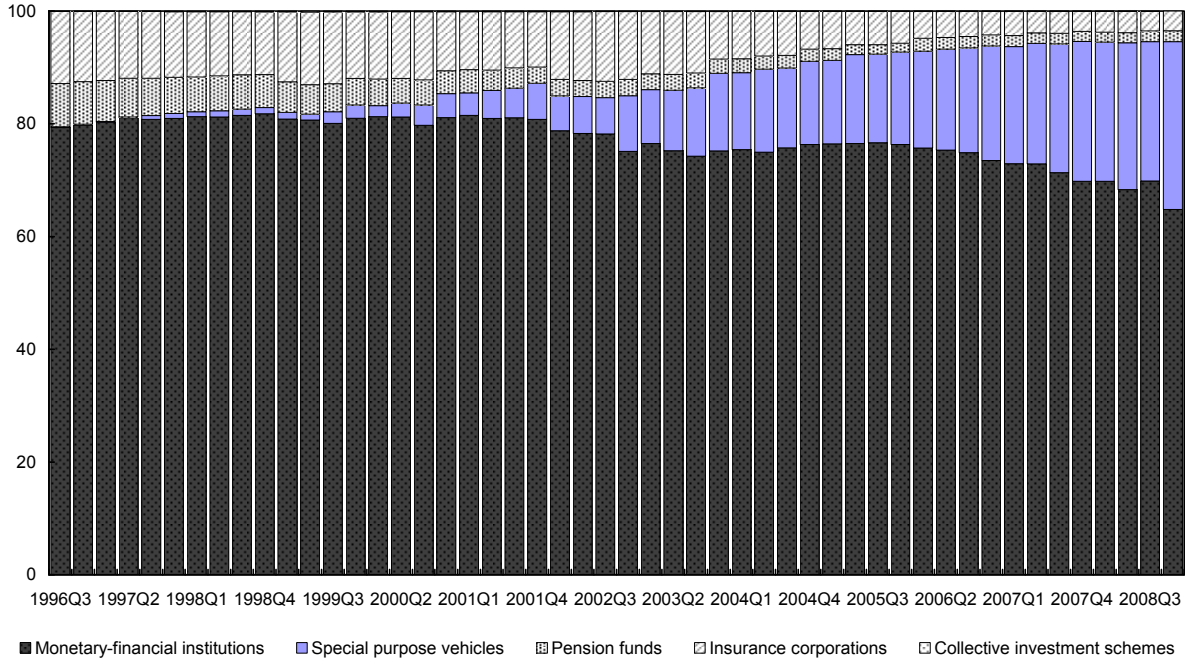
18. **Dutch house prices appear to be broadly in line with long-term fundamentals although declines cannot be ruled out in the short run.** Assessments of house price misalignments are highly sensitive to assumptions on the base year at which prices are assumed to be initially aligned with fundamentals. With this caveat in mind and under the

[12] One could actually argue that the prolonged slowdown in the first part of the 2000s was triggered by circumstances that bear close resemblance to today. Between 1995 and 2000, house prices had doubled while the stock market index had tripled. These asset price booms were accompanied by increased lending, especially in the form of mortgage loans. When the asset prices turned/slowed down in 2000-01, the deterioration in household balance sheets contributed to the overall decline in economic activity. For instance, the DNB estimates that mortgage equity withdrawal added almost 1 percentage point to GDP growth in 1998-2000 and subtracted 0.5 percentage points in 2001-03.

reasonable assumption that house prices were properly aligned in 1971, Dutch house prices as of 2009Q2 are estimated to be at the level that would be implied by changes in a range of economic variables that determine housing behavior, whether housing is treated as a consumption good or as an asset. This result is further supported by dynamic forecasts that take expectations of future house price changes into account.

19. **The impact of further declines in house prices on real activity can be more significant than evaluated by standard models.** While a multivariate framework encompassing major macroeconomic factors delivers small estimates for the potential impact on GDP of a house price downturn, highly leveraged households, banks' exposure to real estate developments, and growing securitization in the financial sector could amplify the adverse consequences for economic activity. Such vulnerabilities should play a prominent role in policy discussions and decisions.

Figure 1-7. Netherlands: Residential Mortgages by Holder, 1996-2008
(In percent of total)



Source: DNB.

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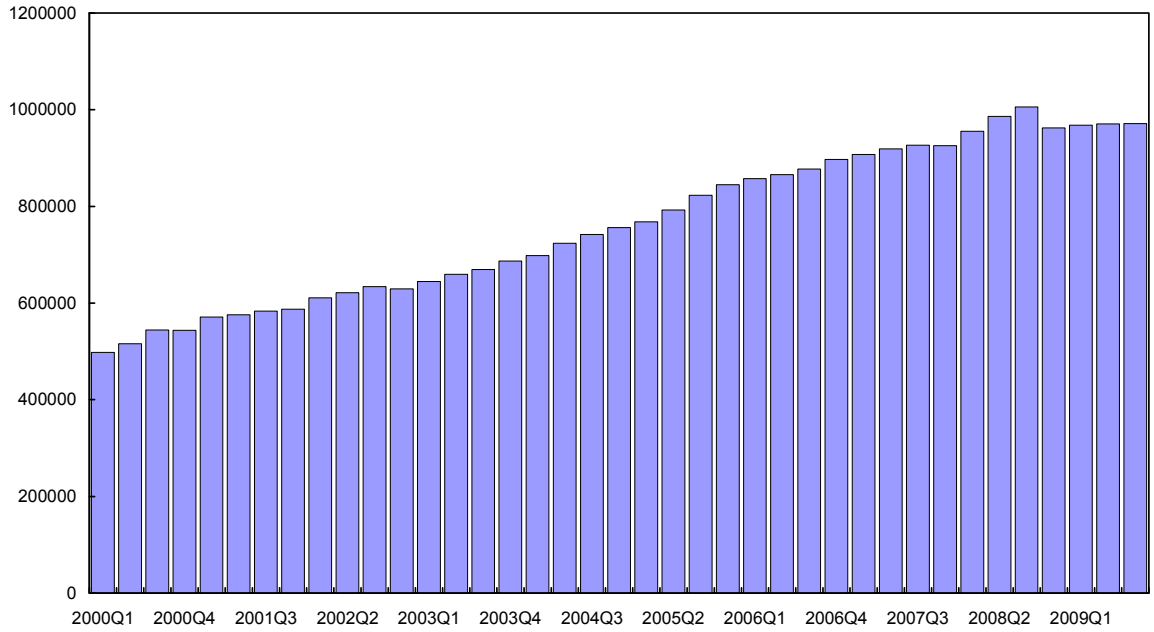
ANALYTICAL NOTE 2. MACRO-FINANCIAL LINKAGES IN THE NETHERLANDS[1]

1. **The impact of the global financial turmoil on the Netherlands has been somewhat uneven so far.** While the banking system has suffered from considerable declines in profitability, asset quality, and capital, credit availability has been less affected with loans to the private sector just slightly tapering off (Figure 2-1).

Figure 2-1. Netherlands: MFI Loans to the Private Sector, 2000-2009
(millions of euros)



Source: DNB.

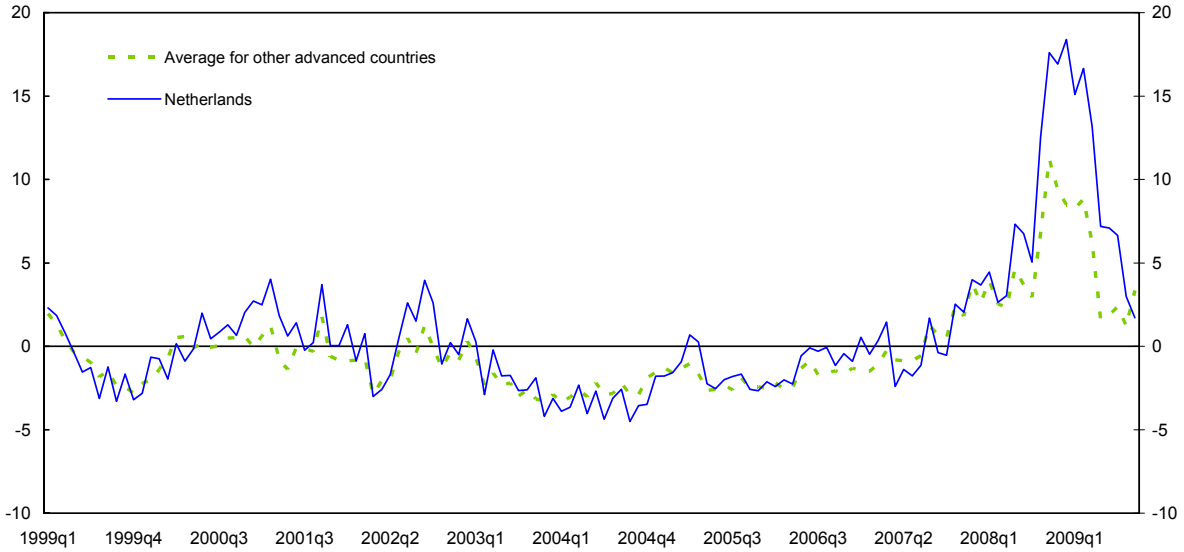
2. **The important questions are how deep the problems in the financial sector remain and to what extent they will be reflected in the broader economy.** Financial distress could continue either due to the delay in recognition of losses and recapitalization or to second-round shocks working through macro-financial linkages, e.g. rising unemployment and declining profits leading to further loan defaults. Because of this second channel through which the financial system could remain under strain, feedback effects between financial developments and the real sector should be taken into account in the assessment of the potential impact of financial sector difficulties on the macroeconomy.

3. **As for the first question, the Dutch financial system, until recently, has been under historically high levels of distress.** We examine the evolution of the financial stress index (FSI), a composite of several variables measuring strain in the banking sector,

[1] Prepared by Deniz Igan.

securities markets, and foreign exchange market.[2] After peaking at the end of 2008, FSI for the Netherlands has been declining in 2009 (Figure 2-2). This trend could point out to the end of stress in the financial sector, however, the FSI is still well above pre-crisis levels at 1.7, namely almost two standard deviations from average conditions. In other words, while the worst might be over, the Dutch financial system does not appear to be out of the woods yet.

Figure 2-2. Netherlands: Financial Stress Index 1/



Source: IMF staff calculations (see Ravi, Danninger, Elekdag, Tytell, 2009, "The Transmission of Financial Stress from Advanced to Emerging Economies," IMF WP).
1/ Financial stress index (FSI) incorporates banking sector beta, the spread between commercial paper and government bonds, the spread between short- and long-run rates, stock market return volatility, sovereign debt spread, and exchange rate volatility. A value of zero implies neutral financial market conditions while positive values imply financial strain. A value of 1 or higher has in the past been associated with a crisis.

4. **Moving to the second question, the analysis points out to potentially large spillovers to real economic activity from the financial turmoil.** We use three techniques to assess the potential impact of continued difficulties in the financial markets. First, we calculate a VAR-based financial conditions index (FCI) that incorporates the impulse responses of GDP to several financial variables. Second, we estimate a disequilibrium model of credit demand and supply. Third, we assess the impact of credit on GDP growth using various estimation techniques. These techniques reveal important macro-financial linkages in the Netherlands.

A. Financial Conditions Index (FCI)

5. **The FCI relies on VAR analysis to account for the feedback loop between macroeconomic and financial factors.** The VAR includes real GDP, CPI inflation, banking

[2] For details of construction and a discussion on the performance of the FSI, see Cardarelli, Elekdag, and Lall (2008), "Financial Stress, Downturns, and Recoveries," Chapter 4 in WEO October 2008.

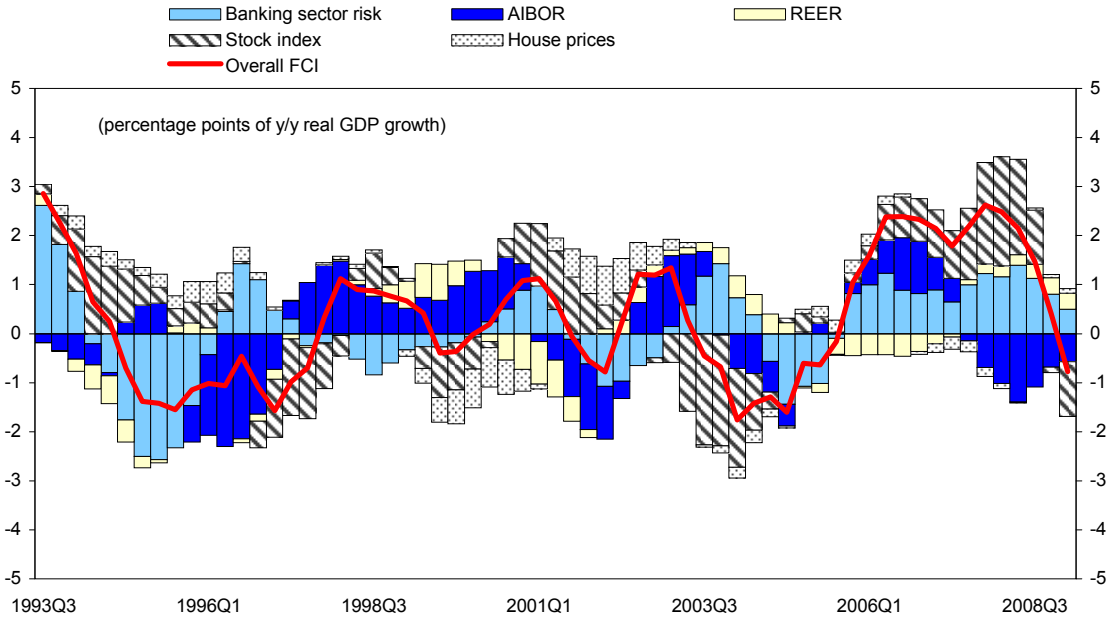
sector risk (measured by the beta estimated in a CAPM), three-month AIBOR (Amsterdam Interbank Offered Rate[3]), real effective exchange rate, stock price index, and house prices. The FCI is then calculated as the cumulative impulse response of real GDP to each of these variables. The cumulative impulse response is further standardized so that a value of 1 corresponds to a total impulse from the financial conditions included in the VAR to GDP in the magnitude of 1 percentage point (annualized). It should also be noted that, with this standardization, a decline in the FCI from, say, 2 to 1 would be expected to reduce GDP growth by 1 percentage point, while the contribution (impulse) from the FCI to growth might still be positive. In other words, both the level of and the change in FCI have a direct interpretation in terms of impact on GDP growth.

6. **According to FCI estimates, deteriorating financial conditions have already shaven more than 2 percentage points off GDP growth.** A rapid decline in the FCI has started at the end of 2007 and the index entered negative territory at the end of 2008, standing at -2.5 in 2009Q2 (Figure 2-3). The analysis also indicates that this negative impact may continue and potentially get larger. In particular, impulse responses suggest a cumulative 3.6 percentage point decline in GDP growth by end-2009 from end-2007 owing to the decline in financial conditions.

7. **Changes in stock prices and interbank lending interest rates, and, to a lesser extent, banking sector risk, account for most of the movement in the FCI.** The contributions to the FCI from stock prices and interbank lending rates have both turned negative. As the liquidity crisis of 2007-08 has impacted immediately stock prices and interbank lending, this finding suggests that the turmoil has already taken its direct toll on GDP growth. Yet, the indirect effects of the crisis (those acting via bank stability) are still working their way through the system. In particular, the contribution to the FCI by banking sector risk, though still positive, has been declining and is predicted to turn negative in the coming quarters. This could be indicative of bank-specific problems, e.g., banks being forced to deleverage, which could lead to a "credit crunch." Next, we look into this possibility in more detail.

[3] The series for AIBOR was discontinued with the adoption of the euro. Hence, the series used for 1999 onwards is the EURIBOR (Euro Interbank Offered Rate).

Figure 2-3. Netherlands: Financial Conditions Index



Source: IMF staff calculations.

B. Is There a Credit Crunch?

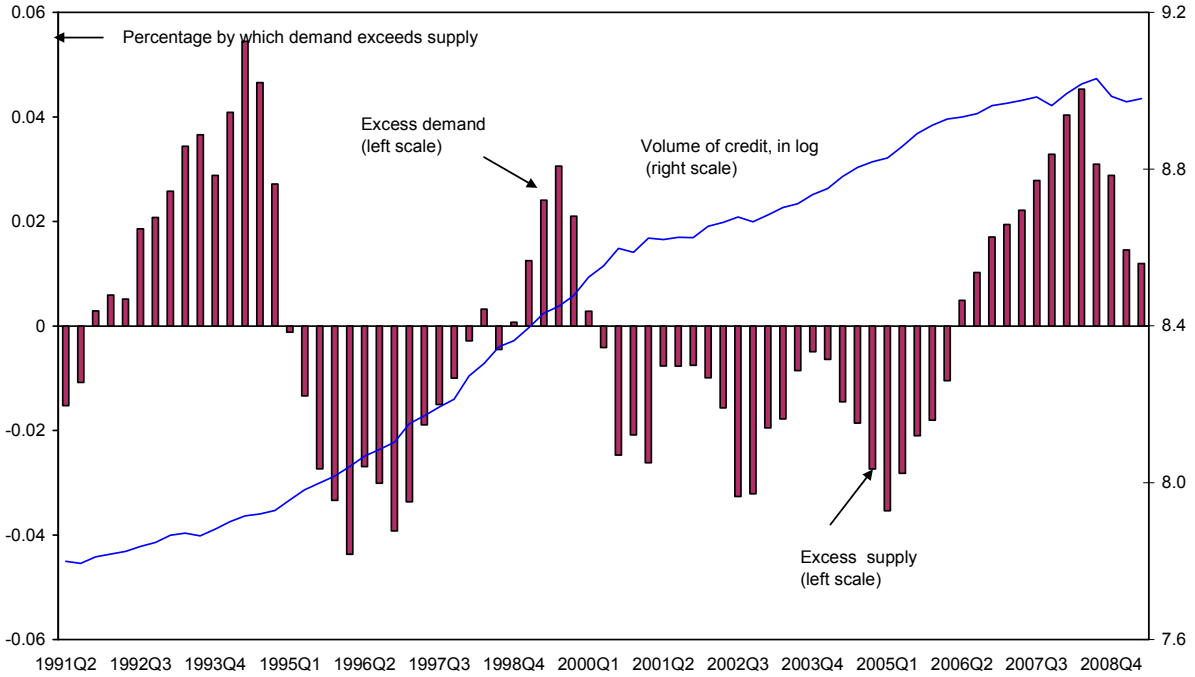
8. **It is important to establish whether a decline in credit represents a "credit crunch" to determine the appropriate policy actions.** A decline in credit is not uncommon following a financial crisis. But, while the distinction between a "credit crunch," driven by the supply side, and a "credit contraction," driven by the demand side, is hard to make in practice, the policy implications are very different. In a "credit crunch," financial intermediaries would be unable or unwilling to meet the demand for credit. Hence, there might be a strong justification for use of public funds to recapitalize banks and restore financial sector stability in order to help financial intermediaries perform their function better. In a "credit contraction," on the other hand, deteriorating economic outlook and falling confidence deter investment and consumption plans, and as a result, push demand for credit downward. Therefore, policy actions should support businesses and households, although recapitalizing the banks would still be important so as to allow them to be ready to resume lending once credit demand improves.

9. **The results from the analysis of supply of and demand for loans point to a credit crunch in 2007-09.** We estimate a disequilibrium model based on a system of equations for the supply of and demand for credit. The supply equation includes money supply (M3), stock price index, income, interest margin, and loans lagged by two quarters. The demand equation includes lending rate, income, and loans lagged by two quarters. Plotting the difference between the residuals from the supply equation and the residuals from the demand equation suggests that there has been increasing excess demand for credit since the second half of

2006 (Figure 2-4). At its peak, demand for credit exceeded supply of credit by more than 6 percent in 2008Q2. By construction, positive values on the left scale indicate excess demand not being met, and when this coincides with a flat and/or declining volume of loans, a "credit crunch" could be in effect. Thus, the disequilibrium model gives signs of a "credit crunch" occurring in the Netherlands starting at the end of 2007, abating for a couple of quarters, and gaining strength at the end of 2008.[4]

10. **The situation, however, has somewhat changed starting in the second half of 2008, with the demand for credit declining faster than the supply of credit.** More precisely, excess demand has been on a downward trend. If this trend continues, the indications of a credit crunch that emerged in 2007Q4 might disappear soon. As this process would be driven by a faster decline in demand, the "credit crunch" could become a "credit contraction." However, bank deleveraging (para. 7) could prolong "credit crunch" conditions.

Figure 2-4. Netherlands: Excess Supply of / Demand for Credit



Source: IMF staff estimates.

[4] One caveat is that the series used in the analysis is not corrected for securitizations which could impart a downward bias on credit growth. On the other hand, the series does not distinguish existing loan commitments which could distort credit growth figures upwards.

C. Impact of Credit on GDP Growth

11. **Econometric analysis using alternative techniques reveals that lagged credit growth might be a significant contributor to Dutch GDP growth.** Policymakers worry about a "credit crunch" because lack of credit might lead to decline in consumption and investment, and hence, to a slowdown in GDP growth. Accordingly, we estimate the impact of loan growth on output in a simple framework where change in GDP is regressed on its own lags and lagged values of growth in bank credit to the private sector. Endogeneity is obviously a concern when regressing output growth on credit growth: the mutual feedback effects between the two variables are apparent. To address this concern, we estimate the relationship using OLS as well as instrumental variables and VAR.[5] In all specifications, credit growth is positively and significantly associated with output growth (Table 2-1). The estimated coefficients are also consistent across specifications, suggesting that a 10 percent drop in the credit growth rate would be associated with around a 1.6 percentage points decrease in the output growth rate. Thus, in the Netherlands, concerns about financial sector developments affecting the rest of the economy appear to be justified.

D. Conclusion

12. **Financial conditions in the Netherlands have tightened, cutting down credit supply and weighing down output growth.** Declining banking stability has contributed to the deterioration of financial conditions although the bulk of the latter has so far come from the direct impact of liquidity shocks and market response to the global crisis. There is some evidence that the contribution by banking sector risk is turning negative. Accordingly, credit supply has been limited.

13. **These findings give support to the large recapitalization package introduced by the authorities.** Going forward, provided that there are no further shocks, the feedback from real to financial activity is likely to shift the driving forces in the credit market from the supply side to the demand side. Hence, the next policy step should be devising a gradual exit strategy from the heavy public interventions in the financial sector, while restoring consumer confidence and encouraging business activity through targeted fiscal measures and structural reforms, and ensuring that the banks remain sufficiently capitalized to be able to meet demand for credit when it starts rising.

[5] Admittedly, this econometric approach is still too simple to capture all possible endogeneity and omitted variable biases. Hence, the results should be interpreted with caution.

Table 2-1. Impact of Credit on GDP

Dependent variable: GDP growth	OLS				IV (Instrument credit growth with own lags)				VAR			
	Coefficient	Std. Error	t-stat	p-value	Coefficient	Std. Error	t-stat	p-value	Coefficient	Std. Error	t-stat	p-value
GDP growth, lagged	0.331	0.120	2.75	0.01	0.233	0.169	1.38	0.17	0.360	0.117	3.08	0.00
GDP growth, lagged twice	0.105	-0.133	0.79	0.43	-0.031	0.205	-0.15	0.88	0.148	0.127	1.17	0.24
Credit growth	0.078	0.047	1.67	0.10	0.365	0.197	1.85	0.06				
Credit growth, lagged	0.128	0.047	2.70	0.01					0.135	0.046	2.93	0.00
Credit growth, lagged twice	-0.008	0.049	-0.17	0.87					-0.001	0.048	-0.02	0.99
Constant	0.000	0.001	-0.25	0.80	-0.002	0.002	-0.80	0.42	0.000	0.001	0.24	0.81
Number of observations	72				72				72			
R-squared	0.34				0.09				0.36			

Source: IMF staff estimates.

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ANALYTICAL NOTE 3. THE CRISIS AND POTENTIAL OUTPUT IN THE NETHERLANDS[1]

1. **An accurate assessment of potential output is particularly important (and particularly difficult) under the current circumstances.** In the near term it is fundamental for monetary and fiscal policy formulation; and in the long run it is key to assessing the sustainability of public finances and asset prices. The usual challenges to measuring unobservable potential output are exacerbated under the current circumstances of large output declines and far more-than-usual uncertainty about the outlook but mis-measurement, resulting in policy mistakes, could prove very costly.

2. **The crisis will impact supply potential through declines in labor and capital contributions and, possibly, through declines in total factor productivity** (TFP). Higher levels of longer-term unemployment are likely to increase NAIRU, and participation rates may decline with discouraged worker effects or use of early retirement options. Capital accumulation will slow with the fall in investment and a higher rate of obsolescence amid economic restructuring and firm closures. Reduced investment and greater regulation may also reduce the pace of innovation; although firms also have stronger incentives to restructure and enhance efficiency. Higher public debt could put upward pressure on interest rates, and higher tax burdens in the future may reduce incentives to work and invest, which would both be a drag on growth. There may, however, be some offsetting effects on potential output. As a response to the crisis, fiscal stimulus will cushion the slowdown and expenditure on infrastructure; reduced wealth might induce greater labor market participation; and the financial crisis might facilitate political consensus for potential-output-enhancing structural reforms.

3. **A recent OECD study finds that extreme financial crisis can permanently reduce potential output by around 4 percent**. The study (looking at OECD countries over the period 1960-2002) finds that a financial crisis negatively and permanently affect potential output by around 1½–2½ percent on average, but with the magnitude increasing with the severity of the crisis. The empirical findings are consistent with recent estimates of the losses in potential output following the crisis in the OECD, the Euro area, and individual country studies.[2]

Cummulative Reduction in Potential Output

	By 2010	Medium-Term
OECD (OECD, 2009)	2	2.75 (by 2017)
Euro area (EC, 2009)	2.7	4 (by 2013)
Euro area (IMF, 2009)	2.2	>6 (by 2014)
The Netherlands	3 1/2	>5 (by 2014)

Sources: OECD, EC, IMF Staff Estimates.

[1] Prepared by Yougesh Khatri and Esther Perez Ruiz.

[2] See "Beyond the crisis: medium-term challenges relating to potential output, unemployment and fiscal position," chapter 4 of *OECD Economic Outlook*, OECD, 2009; European Commission (2009): "Impact of the current economic and financial crisis on potential output," European Economy, Occasional Papers 49, June 2009; and *World Economic Outlook,* IMF, October 2009.

4. **In our baseline—as with most recent studies—growth in the medium term returns to the pre-crisis potential.** Dislocations and restructuring in the financial sector could however prove to be a persistent drag on growth and, in the longer term, adverse demographics are also likely to constrain potential growth (see the recent EC Aging Study, 2009).

5. **Various staff estimates for the Netherlands suggest that the level of potential output is falling considerably, in line with the euro area.**

- We primarily employ the standard *production function* approach (PF) to estimate potential output (as favored by the US CBO, EC, and OECD), but also utilize three statistical detrending (or "smoothing") methods for comparison (the production function approach also requires "smoothing" the labor and TFP series). To address the well understood end-point problems associated with smoothing, we extend the series using our baseline forecast through 2014. The *Hodrick-Prescott* (HP) filter—probably the most commonly used smoothing method—is sensitive to the smoothing parameter (λ) chosen, so we settle on the standard parameter for annual data (HP-100) and an alternative suggested by Ravn and Uhlig (HP-RU). We also use the *ideal band-pass* or *Ouliaris* filter (BP-Filter) which selects components of time-series with periodic fluctuations between 6 and 32 quarters.

- The PF and the smoothing methods yield a relatively narrow range of estimates for the path of potential output in the pre-crisis period, but estimates diverge for the forecast period 2009-2010. The baseline projection for potential growth assumed in this staff report (Table 3-1) is based on a smoothed version of the PF methodology. The production-function-based output gaps are similar to those recently reported by the OECD and EC, but the differences also widen for 2009-2010 reflecting the sensitivity to assumptions on labor, capital and TFP; and differences in growth forecasts.

- Recent potential growth, pre-crisis, seems to be around 2 percent. This is down from previous estimates of 2¼ percent (IMF, 2006; CPB, 2006). Looking forward, our baseline forecast is that the crisis will reduce overall output by around 10 percentage points (relative to the pre-crisis trend) over the medium term and potential output is projected to decline by around 5 percent. We however expect growth to eventually revert to its recent potential (around 2 percent) by 2014.

- Estimates of the potential output and the output gap going forward depend critically on the assumptions about the future path of labor and capital inputs and TFP—all particularly uncertain—and thus are only indicative. Our estimates suggest that two thirds of the reduction in near-term potential growth is attributable to the decline in the contribution of capital, due to the collapse in investment and higher rate of depreciation in the aftermath of the crisis. In addition, structural unemployment is

expected to increase substantially (by 1.3 percentage points between 2008 and 2014),[3] reflecting hysteresis effects whereby the long-term unemployed lose skills and become detached form the labor market. There are both upside and downside risks to these projections. Structural unemployment could end up being higher than assumed here if future consolidation measures result in higher tax wedges. On the other hand, further ease of EPL regulations could help reduce the incidence of long-term unemployment. However, substantial progress in this area seems unlikely.

Table 3-1. Netherlands: Potential Output and Output Gap Estimates
Growth (percent)

	1990-95	1996-2001	2002-2007	2008-10(p)	2006	2007	2008	2009	2010
Real GDP (actual/proj)	2.4	3.7	2.0	-0.5	3.4%	3.6%	2.0%	-4.2%	0.7%
					Potential Growth (percent)				
Production Function	2.9	3.1	1.9	0.8	2.0	2.1	1.7	0.3	0.5
HP-100	2.7	2.9	1.8	1.1	1.6	1.4	1.2	1.1	1.0
HP-RU	2.6	3.3	1.8	0.6	2.0	1.6	1.0	0.4	0.4
BP-Filter	2.6	3.3	1.8	0.5	2.3	1.7	1.0	0.4	0.2
OECD (2009)			1.9	1.5	1.6	2.0	2.2	1.7	0.8
EC (2009)	2.9	3.3	1.7	1.2	1.7	1.7	1.7	1.1	0.7
CPB (2006)	2.5	2.7	1.8						
					Output Gaps (percent of potential GDP)				
					2006	2007	2008	2009	2010
Production Function					0.6	2.1	2.4	-2.2	-2.0
HP-100					1.8	2.2	0.8	-5.2	-0.3
HP-RU					1.4	2.0	1.0	-4.5	0.3
BP-Filter					1.1	1.9	1.0	-4.5	0.5
OECD (2009)					0.6	2.0	1.9	-4.7	-5.8
EC (2009)					0.8	2.8	3.0	-2.7	-3.1

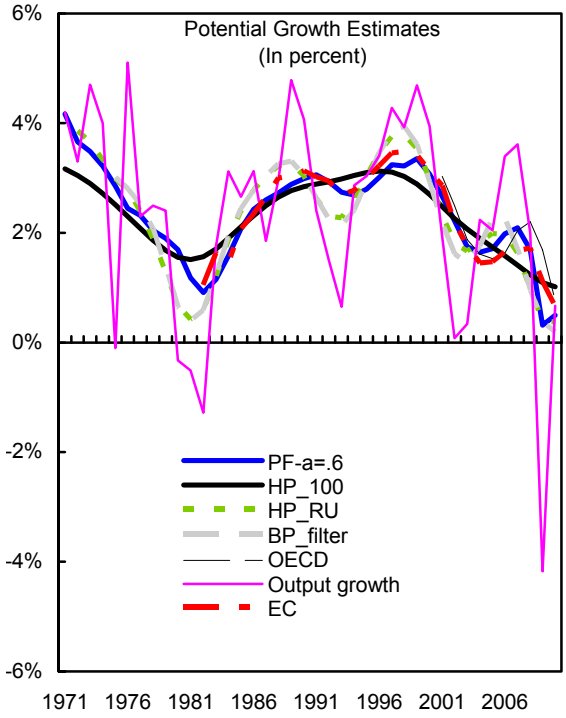
Sources: OECD, EC, CPB, IMF and IMF staff calculations.

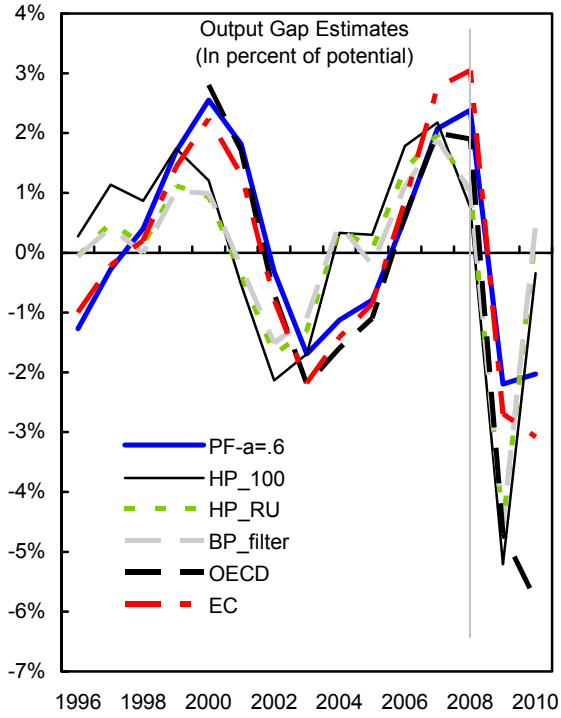
- The revisions to potential output here do not factor in the effect from changes in labor force participation or changes in trend productivity. While such effects may be important, they are difficult to quantify and their sign is uncertain. As already mentioned, wealth erosion may encourage labor participation. On the other hand, with high unemployment, discouraged workers may exit the labor force. Another uncertain factor affecting the direction of participation is the response of migration flows to the

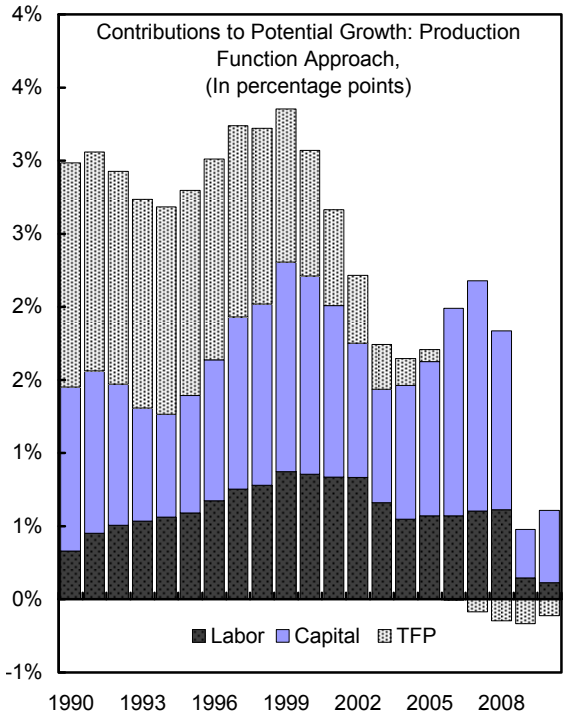
[3] This is consistent with the projected increase in actual unemployment rate of 3.1 percentage points over the same period and the assumption that about ⅖ of the increase in unemployment becomes structural unemployment. This elasticity, which is specific to the Netherlands, is equal to the impact of a unit increase of unemployment on its long-term component (0.62) times the share of long-term unemployment that translates into structural unemployment (⅔). See OECD (2009): "Adjustments to the OECD's method of projecting the NAIRU."

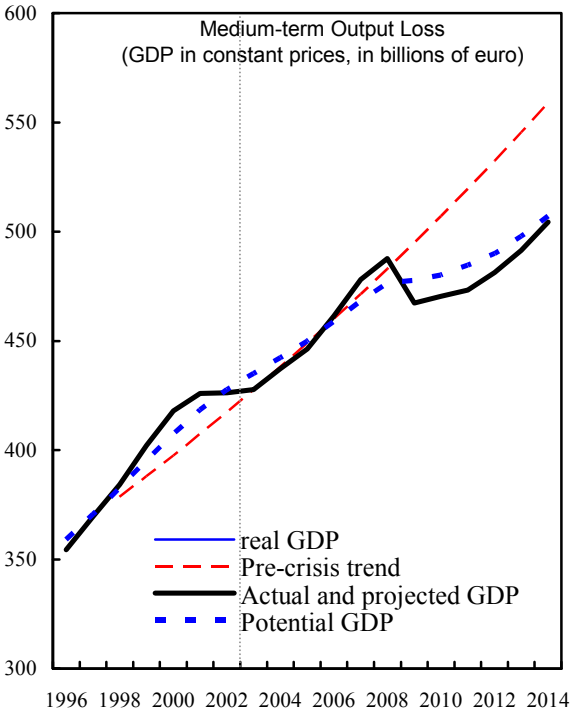
economic downturn. Similarly, the impact of the recession on trend productivity is ambiguous. The crisis may raise aggregate productivity as the least productive activities are abandoned, but could also have an adverse impact on its trend as firms and the government cut back on R&D spending.

Figure 3-1. Netherlands: Potential Output, Output Gaps, and Output Losses









Source: WEO, and IMF staff calculations.

ANALYTICAL NOTE 4. CAPITALIZATION OF THE DUTCH BANKING SYSTEM[1]

1. **In the summer of 2009, the DNB carried out a severe stress test of most of the banking system and major insurers.** The stress test covered the largest 15 banking and insurance groups in the Netherlands, while medium and small insurance companies also applied a macro scenario or carried out sensitivity analyses. Pension funds did not participate in the test.

2. **The DNB test scenario envisaged a severe and prolonged recession even more severe than the Great Depression (although that lasted a much longer period).** Under such a scenario, over 2009-10 GDP shrinks by 6.3 percent, unemployment rises to 9.7 percent, stock market (AEX) drops by 50 percent, and house prices by 30 percent. The stress test envisages losses on home mortgages comparable those incurred in the mid-1980s averaging 1.4 percent in two years, and of 4 percent on commercial lending, a multiple of the levels attained in earlier (much shallower) recessions during the past decades. Altogether, losses of participating large banks and insurers amount to €47 billion over 2009-10, roughly double the losses realized during 2008, with the banks' average Tier-1 ratios declining from 11 percent at end-2008 to 7 percent in 2011. Still, all banks meet the current regulatory norm of Tier-1 capital of 4 percent. In the macro stress test, life insurers suffer most due to the assumed low long term interest rate of 2 percent p.a. which increases insurance liabilities and guarantees extended to policyholders, and losses on mortgage and equity investments, that are only partly offset by the increasing value of government bonds. Non-life insurers are relatively unaffected. The largest insurers' average solvency ratio declines from 200 percent at end-2008 to 160 percent after two years, that for medium-size life insurers would drop to 160 percent, on average, while the average solvency ratio of non-life insurers would decline from 320 percent to 290 percent. All these ratios are still on average well above the minimum requirements. Small, mostly non-life insurers remain unaffected.

3. **Data limitations and the ongoing restructuring make analysis of the financial situation of individual major Dutch banks extremely complex.** With the break up of Fortis in 2008, past balance-sheet of Fortis is no longer relevant for Fortis Nederlands. With the takeover of ABN AMRO and 100 percent acquisition of Fortis Nederlands, both institutions are unlisted, and it is difficult to obtain comprehensive and comparable information about their financials. The pre-takeover ABN AMRO is half-way into a legal separation and transfer of its units to the three buying banks. The Dutch state has acquired Fortis' Dutch banking and insurance operations and thus Fortis' share of ABN AMRO, and is in the process of divesting major portions of both and then integrating these units. This restructuring and divestments thus makes any projection of their revenues and earnings from 2008 data prone to considerable error without extensive study and active help from the authorities. Rabobank is an unlisted cooperative bank and only publishes annual data that are

[1] Prepared by Hemant Shah.

useful for such purposes. ING Groep is a holding company with both insurance and bank business, and as detailed in the Staff Report, is also engaged in a massive restructuring, and has divested several business units during 2009. The ongoing restructuring and staff retrenchment are adding large one-time gains and losses to Fortis, ABN AMRO, and ING, while the uncertainties about full cost of compliance with specific remedies required by the EU competition commission remain large All this makes it exceedingly difficult to do a meaningful stress test on these individual institutions in 2009 without a large amount of institution-specific data and active involvement of the authorities.

4. **Therefore, staff have carried out a rough check of DNB's stress test at the systemic level.** First, since the DNB's stress test scenario is obviously dire, and final conclusions about loan losses for *mortgage* and *commercial portfolios* at 1.4 percent and 4.0 percent over 2009-10 are rather large—we keep them unchanged.[2] Second, the stress scenario assumes a severe *equity* market shock of -50 percent. In addition, while *bond* prices could decline due to credit risk in this scenario, they still increase due to falling interest rates. Specifically, we assume that the combined effect is -5 percent for corporate debt (i.e. losses on corporate debt are slightly larger than loans, even after possible gains due to lower interest rates) and +5 percent on sovereign debt. We also hypothesize a loss rate of 10 percent on *non-mortgage retail credits*. Finally, we assume that banks earn a "normal" return of about 0.65 percent of *earning assets*, before loan losses and write-offs and the level of earning assets remains unchanged—both of which are somewhat conservatively biased.[3] The results of this rough cross-check are presented in Table 4-1.

[2] According to the detailed analyses of one large private bank made available to staff, current loan loss rates on the mortgage loans are under 5 basis points and, under the stress scenario, would rise substantially but only to about 35 basis points. While this may seem counterintuitive, these losses are derived from a detailed matrix considering the degree of collateral available, extent of repayments already made, the distribution of borrowers' income, and the banks' claims on defaulters' future income. Loan loss rates on commercial loans of 4 percent, allowing for, say, 20 percent collateral and 20 percent recovery of uncollateralized debt could imply NPL rates of 6¼ percent or more. Though the stress scenario is indeed severe, looking at past NPL rates that have generally been under 1 percent, staff does not consider a higher NPL or loan loss rate.

[3] The recent past is not a useful indication of banks' future profitability. Dutch banks have traditionally had low margins on relatively low risk lending. This weakness had been recognized and even prior to the crisis, most banks had embarked on a major cost reduction drive through better technology, branch consolidation and staff cuts. In 2007, net return on *total* assets was 0.62 percent *after* loan losses. It has of course been negative in 2008. Assuming that banks would take further measures to cut costs and raise some margins in response to increasing risks, our ROA assumption is conservative. Similarly, if banks were to reduce overall lending in response to this stressed scenario, which would seem reasonable, their losses would be lower.

Table 4-1. Cross-Check on DNB Stress Test

	2008	For 2009-10	
	(Millions of euros)	Loss Rate (Percent)	Loss Amount (Millions of euros)
Earning Assets			
Financial assets			
Held for trading	473,617	-7.10	(33,627)
Designated at fair value through profit and loss	67,969	-7.10	(4,826)
Available for sale	274,472	-7.10	(19,488)
Held to maturity	27,963	-3.29	(920)
Loans and receivables	1,922,005	-3.29	(63,234)
Derivatives-Hedge accounting	20,654	-7.10	(1,466)
Total earning assets (A)	2,786,680		(123,560)
Liabilities			
Deposits from central banks	96,989		
Financial liabilities			
Held for trading	460,536	-7.10	(32,698)
Designated at fair value through profit and loss	120,046	-7.10	(8,523)
Total liabilities (B)	2,897,230		(41,221)
Net earnings before loan losses and write-offs (C)		0.65	36,227
Net income (A-B+C)			(46,112)
Total equity	97,509		51,397
Equity required for 4 percent of earning assets			111,467
Potential shortfall			(60,071)

Source: DNB Statistical Bulletin (for 2008 data) and IMF staff estimates.

5. **The results show that our rough cross-check yields losses of the order of €46.1 billion for the entire banking system.** In the DNB's stress test, the coverage of the banking system is slightly over 90 percent and about 90 percent of the financial system is attributed to banks, with around 10 percent to insurers. Thus, the result of the staff's top-down stress test estimate is very close to the overall results of the bottom-up stress tests by individual institutions. The losses under this extreme scenario would reduce systemic equity to €51.4 billion from €97.5 billion. In addition, if global regulators were to reach a consensus on raising equity requirements to a 4 percent minimum in terms of the TCE/TA ratio, the Dutch banking system would need altogether about €60.0 billion in new capital under the

severely stressed exercise conducted by the DNB, given an initial TCE/TA ratio of 3.2 percent.[4]

6. **However, even under a less grave scenario than assumed by the DNB, the financial sector is likely to need significant additional capital.** This would be required to support brisker lending when the economy recuperates, enhance existing capital buffers, and build up equity in response to the likely increase in levels considered adequate by regulators. Banks have already demonstrated capacity to raise market-based equity and debt funding. The state's commitment to restoring intervened banks to health and the ongoing restructuring and divestment of non-strategic businesses should further improve these entities' market access over time, ensuring that extra capital may be tapped without sizable government injections.

[4] The Dutch authorities correctly point out that despite the discussion of a 4 percent equity norm at G-20 and other fora, this is not as yet settled regulation. Most discussions also recognize the need to phase such tightening of capital requirements over a suitably long period of time. In any case, imposition of such requirement could affect the Dutch banking system disproportionately, given the current low risk weighting, and could cause significant deleveraging as well as increased risk profile. As of 2008, risk-weighted assets amounted to €1,089 billion, compared to earning assets of €2,787 billion, and total assets of €2,995 billion.

ANALYTICAL NOTE 5. LONG RUN FISCAL SUSTAINABILITY IN THE NETHERLANDS[1]

1. **This note provides an updated assessment of fiscal sustainability in the Netherlands.** The latest estimates of aging pressures from ECFIN are incorporated in the analysis, as well as the implications of the recent weakening in the fiscal position. We conclude that there has been a marked deterioration in fiscal sustainability, and the sustainability gap is much larger than previously estimated. Measures to help erase the sustainability gap are briefly discussed, as well as optimal fiscal consolidation paths.

A. Recent Fiscal Developments and Outlook

2. **While the fiscal balance remained robust in 2008, public debt increased sharply as a result of financial sector bailout measures**. The headline surplus rose by ½ percentage point to ¾ percent of GDP, while the structural deficit stayed at one percent of GDP in 2008. However, the global financial turmoil necessitated large public assistance to several financial institutions, particularly recapitalizations and provision of liquidity. These measures added about 15 percentage points to gross public debt, as a result of which the debt stock—which would otherwise have declined—surged from 45½ percent of GDP in 2007 to 58¼ percent of GDP in 2008. On the assumption that all the government disbursements will be recouped as the financial sector recovers, they have largely been treated as financing transactions, and the effect on the fiscal deficit and net debt is negligible.

3. **The fiscal situation has deteriorated significantly in 2009, with further worsening expected in 2010**. A sharp contraction in GDP together with structural relaxation imply that the headline fiscal balance is expected to deteriorate to a deficit of 4½ percent of GDP in 2009 (a 5¼ percentage points drop). Of this deterioration, 3 percentage points are estimated to be structural in nature, with the remainder reflecting the operation of automatic stabilizers. Moreover, the headline fiscal deficit is expected to decline further to almost 6 percent of GDP in 2010, with the structural deficit increasing by ¾ percentage point to 4¾ percent of GDP. The authorities plan to begin consolidation in 2011, by which time it is hoped that a global recovery would have taken root.

4. **As a result, the starting point to assess sustainability is markedly worse than staff and authorities had envisaged in 2008**. Even as recently as the November 2008 Stability Program, the authorities had expected a structural ***surplus*** of 1.1 percent of GDP in 2009, considerably better than staff's latest projection of a structural ***deficit*** of 4 percent of GDP.

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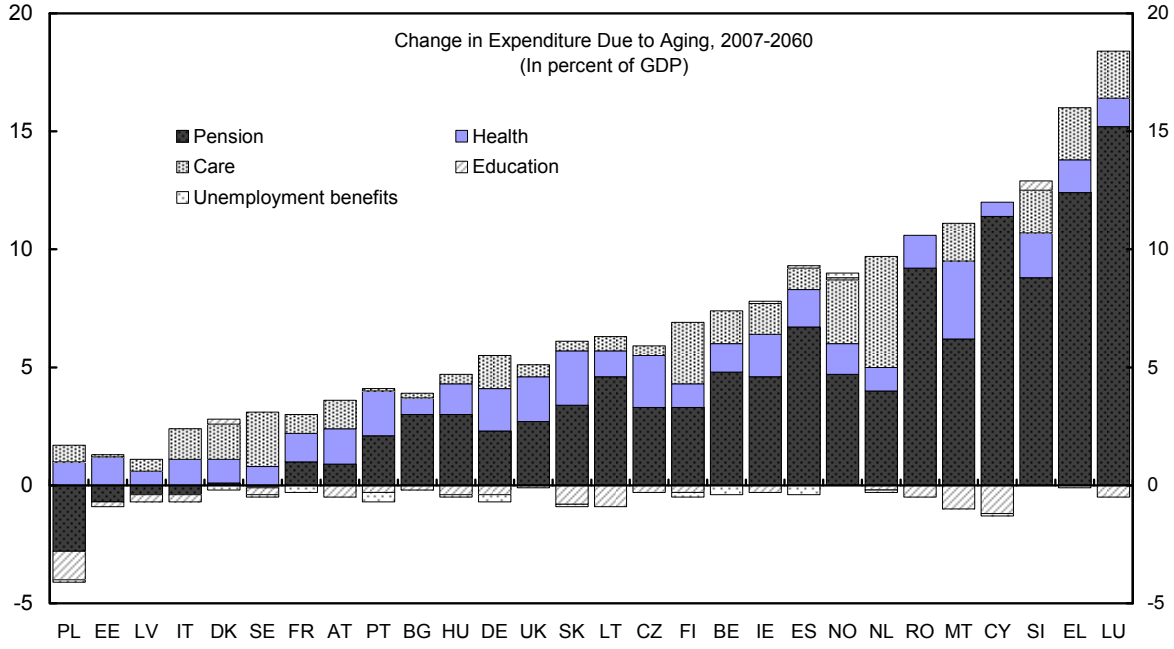
[1] Prepared by Daniel Kanda

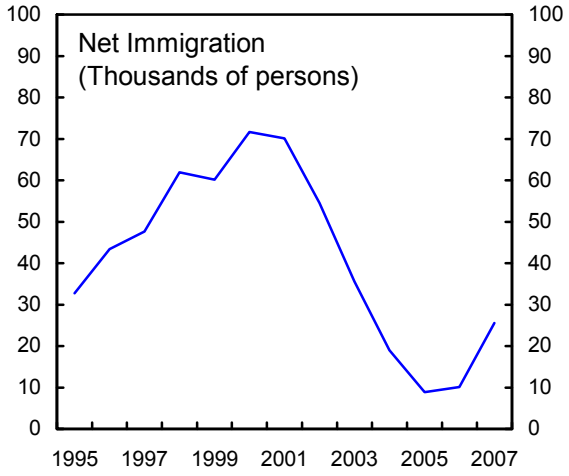
B. Fiscal Sustainability Has Deteriorated

5. **Recent ECFIN baseline estimates of aging pressures for the Netherlands are in the relatively high range in comparison with other European countries**. From 2007 to 2060, aging pressures are estimated to add 9.4 percent of GDP to fiscal expenditures in the Netherlands, well above the median of 5.3 percent of GDP across the European Union. The increase for the Netherlands is composed of increased pension expenditure of 4 percent of GDP, larger long-term care expenditure of 4.7 percent of GDP, higher health-care expenditure of one percent of GDP, and reduced education and unemployment-benefit expenditures of 0.2 and 0.1 percent of GDP, respectively.

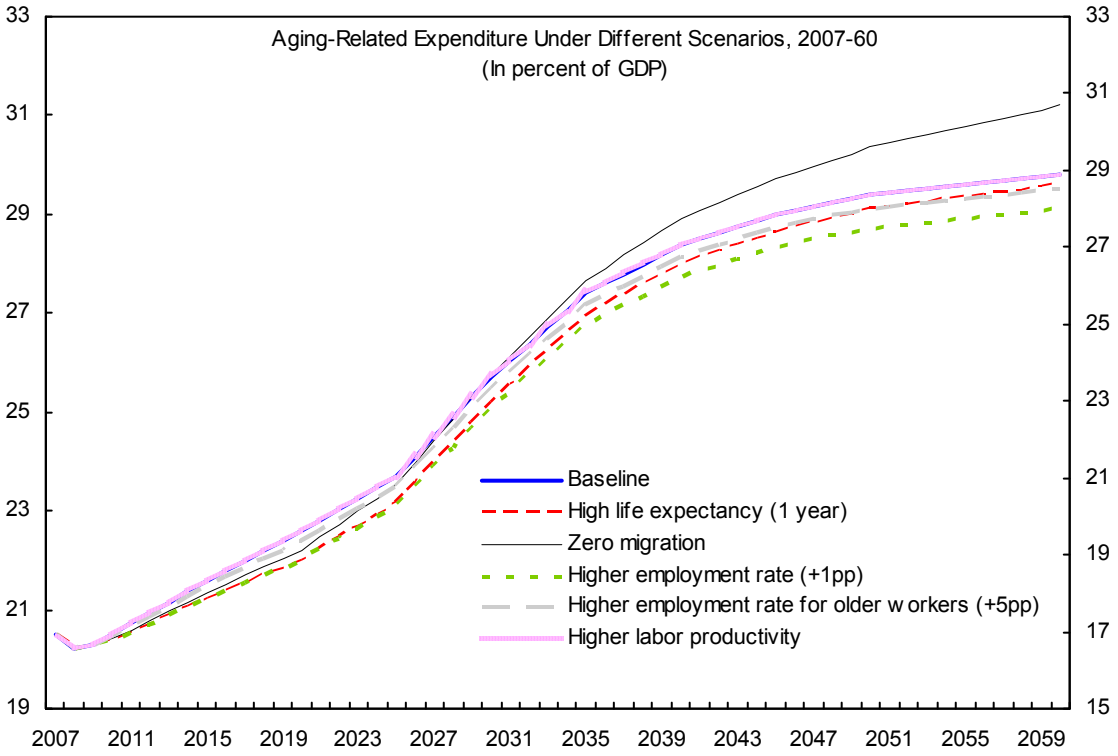


Source: DG ECFIN, The 2009 Aging Report, and IMF staff calculations.

6. **These baseline estimates are sensitive to the underlying assumptions used**. In particular, the assumptions on immigration have a significant influence on the projections. The baseline scenario assumes that average annual net immigration over 2010-60 is about 9,500 persons, which is among the lowest in share of population (0.06 percent) in the EU27, and also below inflows in recent years. In comparison, an alternative scenario with zero immigration is projected to add 1.4 percent of GDP to the increase in aging related spending over 2011-60. Roughly speaking, therefore, an



increase in annual immigration flows by 1,000 would reduce the buildup of aging pressures by about 0.15 percent of GDP. In contrast, however, an analysis of the benefits of immigration carried out by the CPB in 2003 is more pessimistic, finding little or even negative fiscal benefits to the Netherlands from recent immigration.[2]



Sources: DG ECFIN, The 2009 Ageing Report, and IMF staff estimates.

7. **The sustainability indicator used is based on the general government intertemporal budget constraint**. This is the same approach used by the Dutch authorities, and is also the S2 sustainability indicator used in the EC's sustainability reports.[3] The sustainability gap is the defined as the constant change to the primary balance (in percent of GDP), over an infinite horizon, such that the intertemporal budget constraint is satisfied. In turn, the intertemporal budget constraint is satisfied if the discounted sum of future primary surpluses is sufficient to offset the intital debt stock. Assuming that GDP grows at a constant

[2] Roodenberg, H., R. Euwals, and H. ter Rele, 2003, "Immigration and the Dutch Economy," CPB Netherlands Bureau for Economic Analysis, The Hague.

[3] See van Ewjik, C., N. Draper, H. ter Rele, and E. Westerhout, 2006, "Ageing and the Sustainability of Dutch Public Finances," CPB Netherlands Bureau for Economic Analysis, The Hague; and European Commission, 2009, "Sustainability Report 2009."

rate and given a constant discount rate, some algebraic manipulation yields the following formula for the sustainability gap, as calculated in period 0:

$$S_0 = (r - g)\left[D_0 - \sum_{t=0}^{\infty} \left(\frac{1+g}{1+r} \right)^t P_t \right]$$

Where S_0, r, g, D_0, Y_0, and P_t, represent the sustainability gap in percent of GDP in period 0, discount rate, GDP growth rate, initial debt stock in percent of GDP in period 0, GDP in period 0, and primary surplus in percent of GDP in period t, respectively.

8. **Staff's estimate of the sustainability gap has increased substantially**. This reflects the deterioration in the fiscal position since the last Article IV mission, as well our use of the new ECFIN baseline estimates that are higher than the authorities' previous estimates of aging pressures. Consistent with previous exercises, the starting year for the analysis is taken to be 2011. Staff project that, as a result of the recent fiscal deterioration, in 2011 the structural primary balance will be 4½ percent of GDP lower than assumed in the sustainability analysis in the 2008 Staff Report. Given that deterioration, and higher estimates of aging pressures, the estimate of the sustainability gap has increased by 5½ percentage points to 8 percent of GDP.[4] [5] While higher pension payments would also increase tax receipts on pension income, this offers only a small offset to the increase in the sustainability gap. However, the sustainability gap could turn out to be less than 8 percent of GDP if the large external current account surplus unwinds as a rising number of retirees draw down their accumulated pensions, raising consumption-based tax revenues over the long run as share of output. But the size of this effect is quite uncertain however.

[4] This assumes that the outlays for financial sector bailout—including any additional interest payments from the debt issued for this purpose—are fully recouped. With zero recoupment of these outlays the sustainability gap increases to 8½ percent of GDP.

[5] In comparison, ECFIN estimates the fiscal sustainability gap at 6.9 percent of GDP, but with an estimated structural primary deficit in 2010 of 1½ percent of GDP compared to staff's estimate of 2½ percent of GDP.

Changes to Assessment of Fiscal Sustainability (Percent of GDP)

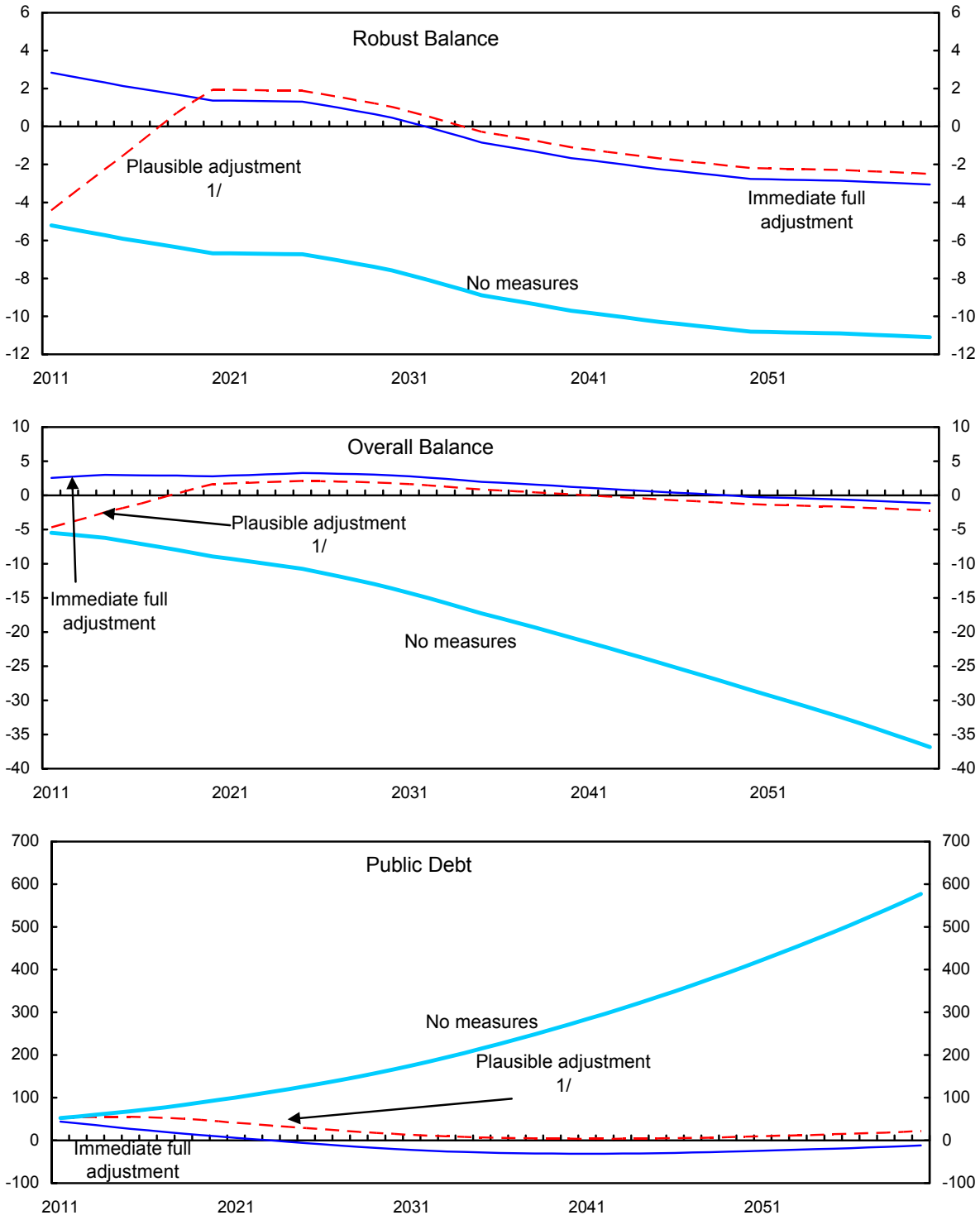
	Previous	Current	Difference
Structural primary balance in 2011	2.2	-2.4	-4.6
Increase in age-related spending (2011-60)	5.5	8.8	3.3
Of which: Pensions	2.5	4.0	1.5
Other	3.0	4.8	1.8
Increase in tax on pension income (2011-60)	1.5	2.7	1.2
Sustainability gap	2.6	8.0	5.4

Sources: CPB: Ageing and Sustainability of Dutch Public Finances (2006), ECFIN: 2009 Ageing Report, and staff calculations.

9. **Absent corrective measures, public debt is projected to exceed 500 percent of GDP by 2060 in view of the large sustainability gap**. Alongside, the robust deficit (i.e. the structural primary deficit excluding property income) is projected to increase by 6 percentage points to 11 percent of GDP, while the overall fiscal deficit deteriorates by 31½ percentage points to 36¾ percent of GDP as interest payments consume an ever-increasing share of fiscal expenditure. In contrast, immediate full adjustment implies that gross debt is driven to zero by 2023, with a notable buildup of government assets thereafter to help defray the long-run costs of aging.

10. **While immediate full adjustment on the scale required is implausible, delaying adjustment requires a higher long-run primary surplus target to ensure sustainability.** Staff estimate that phasing in the adjustment over a 10 year period requires structural measures totaling about 8½ percent of GDP for sustainability, while adjustment over a 4-year period would require measures totaling about 8¼ percent of GDP.

Netherlands: Fiscal Sustainability, 2011-60
(Percent of GDP)



Sources: CPB: Ageing and the Sustainability of Dutch Public Finances (2006), ECFIN: The 2009 Ageing Report, and Staff calculations.

1/ The plausible adjustment scenario corresponds to the variable weights scenario in Table 5-1, and envisages the sustainability gap being closed by 2020.

C. Measures to Achieve Sustainability

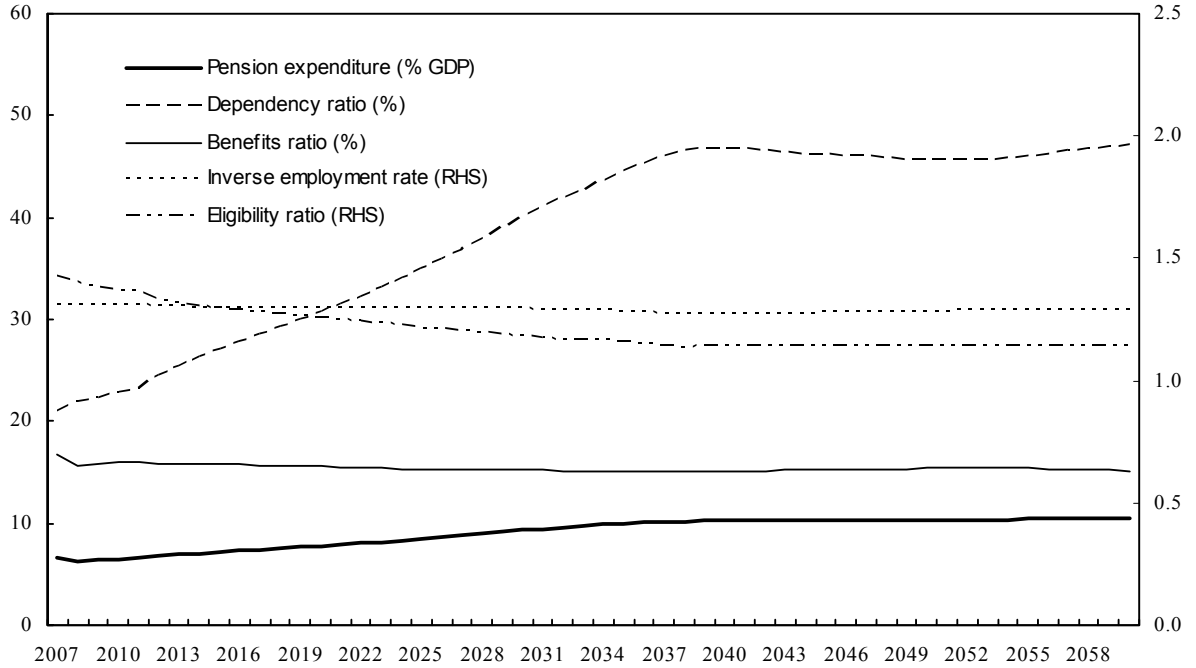
11. **The 2010 Budget Memorandum envisages that significant consolidation will begin in 2011**. Ahead of this, the authorities have already identified a package of measures (phased increase in the retirement age to 67 years, capping mortgage interest deductibility for high-priced homes, reduction in health-care allowances, and savings in the provision of medical services), to be implemented from 2011 onward, which is expected to yield savings of 1¾ percent of GDP over the long run. However, the total from these efforts falls well short of the adjustment needed, so more measures will need to be identified, including in subsequent years. One area that could be considered is a reduction in the maximum duration of unemployment benefits, which at 38 months is high by international standards. Staff have suggested cutting this to 18 months.

12. **Measures to directly contain the impact of aging on the public finances should be a key plank of efforts to secure sustainability**. In this regard, pension reform is critical. The OECD notes that the state pension has not been changed since it was set up in 1957, even as life expectancy has increased by more than 6 years and a strong second-pillar pension system has been built up. Also, it is relatively generous by international standards, at about 31 percent of average earnings compared to an average 22 percent for neighboring countries. The decomposition of the projected buildup in pension pressures indicates that the increase arises from a pronounced increase in the old-age dependency ratio, which is projected to be partly offset by tightening of eligibility rules. However, more could be done, including by gradual reduction of benefits as well as improvements in the employment ratio. In addition, the rise in the old-age dependency ratio could be limited by raising the retirement age.

13. **The authorities do not dispute the need for such measures**. Indeed, they have already moved in this direction by abolishing tax incentives for early retirement. They have also announced the intention to raise the retirement age from 65 to 66 in 2020 and to 67 in 2025. These measures could also be supported by intensified efforts to increase labor participation rates and immigration in order to increase the base for funding pensions. Consideration could also be given to reducing or means-testing the generosity of pensions, while strengthening dependence on the second pillar pension.

14. **Major health sector reform in 2006 has increased competition in the sector, but more is needed to contain the rise in health-care expenditures**. The reforms harmonized the basic health insurance package, increased consumer information on premiums, facilitated the switching of insurance providers, blocked insurance companies from refusing coverage on the basis of pre-existing conditions, and mandated that all acquire insurance. This has intensified competition amongst insurers, leading to increased mergers and some downward pressure on premiums. However, expenditure pressures are still significant, and the 2009 Spring Memorandum pointed to a sharp rise in expenditures (notably payments to medical specialists). There are also concerns that mergers of insurance companies will ultimately reduce competition. Thus sustained vigilance will be needed to keep a lid on health costs.

Netherlands: Decomposition of Spending Expenditure Projections, 2007-2060



Sources: DG ECFIN, The 2009 Ageing Report, and IMF staff estimates.

15. **Moreover, eligibility, entitlements, and arrangements for old-age care will also need reform, as this is an area where aging pressures will be substantial.** The projected increase in long-term care spending for the Netherlands is by far the highest in the EU, which suggests that reforms drawing on lessons from other EU countries could yield substantial savings.

16. **The pace of consolidation will reflect the balancing of the government's twin stated objectives of reducing both the output and the fiscal sustainability gaps**. Given the large negative output gaps projected in 2009-10, the intention to delay consolidation until 2011 implies essentially that a zero weight is placed on the sustainability gap over the short run. Beyond that horizon, however, different government preferences will lead to different consolidation paths. Table 5-1 illustrates various consolidation paths assuming the authorities' preferences are governed by a quadratic loss function, with the different paths reflecting different weights on the output and sustainability gaps.

Table 5-1. Illustrative Optimal Annual Fiscal Adjustment Paths Under a Quadratic Loss Function 1/

Loss Function Weights		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Alpha 2/	Beta 3/										
		Structural primary balance (percent of GDP)									
1	1	2.3	3.3	4.0	4.5	5.0	5.3	5.5	5.7	5.8	5.9
0	1	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
1	0	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7
7	1	-1.9	-1.3	-0.8	-0.2	0.2	0.7	1.1	1.5	1.8	2.1
1	7	5.4	5.7	5.9	6.0	6.1	6.1	6.2	6.2	6.2	6.2
Memorandum item:											
Variable weights 4/		-1.6	-0.7	0.2	1.1	2.0	2.9	3.8	4.7	5.5	6.2

Source: IMF staff calculations.

1/ Structural primary balance in 2010 = -2.4 percent of GDP; Structural primary balance target to close sustainability gap after 10 years = 6.2 percent of GDP; Structural primary balance target to immediately close sustainability gap = 5.7 percent of GDP; Fiscal multiplier is taken to be 0.8; Output gap in 2010 = -1.8 percent of GDP.

2/ Weight on output gap.

3/ Weight on sustainability gap.

4/ Alpha is assumed to decline over time from an initial value of 7, while Beta rises at the same pace from an initial value of 1.

17. **A plausible adjustment path could be one where the weight placed on the sustainability gap rises over time**. This would be consistent with a relatively moderate pace of consolidation, where the sustainability gap is erased over a 10-year horizon. The "plausible adjustment" path shown in the panel chart on fiscal sustainability corresponds to variable weights on the sustainability and output gaps, respectively increasing and decreasing over the 2011-2020 period (see Footnote 4 of Table 5-1).

INTERNATIONAL MONETARY FUND

KINGDOM OF THE NETHERLANDS—NETHERLANDS

Staff Report for the 2009 Article IV Consultation—Informational Annex

Prepared by the European Department

December 15, 2009

Contents Page

Appendix I. Netherlands: Fund Relations
(As of October 31, 2009)

I. **Membership Status:** Joined December 27, 1945; Article VIII.

II. General Resources Account:	SDR Million	Percent of Quota
Quota	5,162.40	100.00
Fund holdings of currency	4,091.21	79.25
Reserve position in Fund	1,071.24	20.75

III. SDR Department:	SDR Million	Percent of Allocation
Net cumulative allocation	4,836.63	100.00
Holdings	4,885.68	101.01

IV. **Outstanding Purchases and Loans:** None

V. **Latest Financial Arrangements:** None

VI. **Projected Obligations to Fund** (SDR million; based on existing use of resources and present holdings of SDRs):

		Forthcoming			
	2009	**2010**	**2011**	**2012**	**2013**
Principal					
Charges/interest		0.36	0.03	0.36	0.36
Total		0.36	0.36	0.36	0.36

VII. **Exchange Rate Arrangements:**

The Netherlands' currency is the euro, which floats freely and independently against other currencies.

VIII. **Article IV Consultation:**

Discussions for the 2009 Article IV consultation were held in Amsterdam and The Hague from October 22–November 2, 2009. The staff report for the 2008 Article IV Consultation (IMF Country Report No. 08/171, June 2008) was considered by the Executive Board on May 21, 2008. The Article IV discussions with the Netherlands are on the standard 12-month consultation cycle.

IX. **Exchange Restrictions:**

The Netherlands maintains an exchange system free of restrictions on payments and transfers for current international transactions, except for restrictions maintained solely for security reasons. These measures are established by European Union regulations and have been notified to the Fund pursuant to Executive Board Decision No. 144-(52/51).

Appendix II. Netherlands: Staff Analytical Work, 2000–09

Fiscal Policy

- *Long Run Fiscal Sustainability in the Netherlands*, Analytical Note 5, 2009 Staff Report.
- *Volatility of Tax Revenues in the Netherlands,* IMF Country Report No. 06/284.
- *Budgetary Policymaking in the Netherlands*, IMF Country Report No. 05/225.
- *Recent Fiscal Developments in the Netherlands*, IMF Country Report No. 04/301.
- *Medium-Term Fiscal Policy,* IMF Country Report No. 02/123.
- *Health Care Reform*, IMF Country Report No. 02/123.

The Financial Sector

- *Dutch Housing Markets: What Went Up Will Come Down?*, Analytical Note 1, 2009 Staff Report.
- *Macro-Financial Linkages in the Netherlands*, Analytical Note 2, 2009 Staff Report.
- *Capitalization of the Dutch Banking System*, Analytical Note 4, 2009 Staff Report.
- *House Prices in the Netherlands: Determinants, Concerns, and Considerations Related to Phasing Out the Tax Deductibility of Mortgage Interest Payments,* IMF Country Report No. 06/284.
- *The Financial Sector in the Netherlands: A Health Check and Progress Report on the FSSA Recommendations,* IMF Country Report No. 05/225.
- *House Prices in the Netherlands,* IMF Country Report No. 05/225.
- *Second Pillar Pensions, Stock Market Returns, and Labor Demand,* IMF Country Report No. 03/240.

Labor Markets

- *Wage Bargaining in the Netherlands,* IMF Country Report No. 03/240.
- *Inactivity and Poverty Traps,* IMF Country Report No. 02/123.
- *Reform of the Disability Program,* IMF Country Report No. 02/123.
- *The Labor Income Tax Credit in an International Perspective,* IMF Country Report No. 01/96.

Growth, Productivity, and Related Cyclical Issues

- *The Crisis and Potential Output in the Netherlands*, Analytical Note 3, 2009 Staff Report.
- *Potential Growth and Total Factor Productivity in the Netherlands,* IMF Country Report No. 06/284.
- *The External Competitiveness of the Dutch Economy: A Short Note on Evidence from both Aggregate and Disaggregate Data,* IMF Country Report No. 05/225.

- *Long-Run Household Consumption Equilibrium in the Netherlands,* IMF Country Report No. 05/225.
- *Recent Productivity Trends in the Netherlands,* IMF Country Report No. 04/301.
- *Estimating Potential Growth and Output Gaps for the Netherlands,* IMF Country Report No. 03/240.
- *Dealing with Cyclical Tensions,* IMF Country Report No. 00/88.

Appendix III. Netherlands: Past Fund Policy Recommendations and Implementation

Past Staff Recommendations	Implementation
Fiscal Policy: Staff endorsed the authorities' pre-crisis target of achieving a structural surplus of 1 percent of GDP by 2011, but also encouraged the authorities to seize opportunities for faster consolidation, given an estimated sustainability gap of 2¼ percent of GDP in 2011. Other recommendations include closer coordination between the central government and the local governments, and refinements to enhance the transparency and reduce the procyclicality of the fiscal framework (e.g., reporting of tax expenditures in the budget and their inclusion in the expenditures ceiling, and exclusion of unemployment benefits from the expenditure ceiling).	Fiscal consolidation of 1¼ percentage points of GDP, in structural terms, was achieved during 2003–08. The authorities improved coordination between various levels of government, excluded interest payments from the expenditures ceiling, lowered the "signaling value,"[1] introduced fixed funding of the FES. They have also recently removed unemployment benefits from the expenditure ceilings.
Labor Market: Past recommendations included tightening unemployment benefits, abolishing fiscal incentives for early retirement, reducing inactivity traps, reassessing disability entitlements, and liberalizing employment protection legislation.	Maximum duration of unemployment benefits was lowered to 38 months—which however remains high in international comparison. Tax/benefit incentives for early retirement were eliminated, inactivity traps attenuated, and disability rights tightened. Recommendations not yet taken on board include: (i) reducing the still high effective tax rate on second family workers, in part through faster elimination of the imputation of the general tax credit to the primary worker; (ii) tightening access to the disability scheme by the young; (iii) stricter enforcement of work availability requirements for the partially disabled and unemployed; (iv) extension of the new more severe rules for periodic reassessment of disability status to those aged 45 and over; and (v) further easing the dismissal system and aligning the rate of accumulation of severance payments for workers aged 50 and over with that of other workers.
Product Market: The Fund has generally supported the authorities' own liberalization program, including the regional unbundling of the energy market, the reduction in required licenses and permits, and, more generally, the efforts to increase competition and reduce the cost of doing business.	The stringency of product market regulation has gradually decreased, reflecting continued simplification in barriers to entrepreneurship. However, retail distribution should be further liberalized by phasing-out the restriction on shop-opening hours, easing zoning regulations and facilitating the entry of large retail stores.
Financial Sector: the 2004 Financial Sector Stability Assessment (FSSA) and subsequent Article IV consultations have recommended passage of a new Financial Supervision Act, clarifying the framework for financial sector supervision and the authority of the minister, improvements in security settlement systems, introduction of the new regulatory framework for pension funds, establishment of a Financial Stability Division, expanding stress testing models, strengthening the AML-CFT framework, reducing mortgage interest deductibility, introducing a mortgage code of conduct to help contain high LTV mortgages.	The authorities have implemented most of these recommendations. Prudential supervision is consolidated at DNB, while market conduct supervision is entrusted to AFM. A Financial Stability Division has been established at DNB and pension regulation has been overhauled. DNB has been conducting stress tests regularly as well as improving the stress test framework. There is still only partial progress regarding mortgage interest deductibility, which has not been fully phased out but the authorities have made small reductions. Similarly, the mortgage code of conduct has been strengthened, but it has not been very effective in reducing the high LTV ratio. A modification of the Code is under discussion which would include an explicit LTV ratio guideline.

[1] The "signaling value" is the fiscal balance ratio to GDP below which corrective measures must be taken to avoid breaching the Maastricht criteria. It has been reduced to 2 percent from 2½ percent of GDP.

Appendix IV. Netherlands: Statistical Issues

(As of December 3, 2009)

I. Assessment of Data Adequacy for Surveillance	
General: Data provision is adequate for surveillance.	
National accounts: As a one-off matter, a number of institutional reforms had a significant impact on national account and other data in 2006. Most importantly, the reform of health care insurance caused a significant reclassification of private consumption into public consumption. This shift had a big impact on the growth rates of the components concerned, but overall GDP was not affected.	
II. Data Standards and Quality	
Subscriber to the Fund's Special Data Dissemination Standard since June 11, 1996.	Data ROSC is available.

Netherlands: Table of Common Indicators Required for Surveillance
(As of December 3, 2009)

	Date of Latest Observation	Date Received	Frequency of Data /7	Frequency of Reporting /8	Frequency of Publication /8	Memo Items:	
						Data Quality—Methodological Soundness /9	Data Quality—Accuracy and Reliability /10
Exchange Rates	Current	Current	Daily and Monthly	Daily and Monthly	Daily and Monthly		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities /1	10/09	12/03/09	Monthly	Monthly	Monthly		
Reserve/Base Money 2/	10/09	12/03/09	Monthly	Monthly	Monthly		
Broad Money 2/	09/09	12/03/09	Monthly	Monthly	Weekly and Monthly		
Central Bank Balance Sheet	10/09	12/03/09	Monthly	Monthly	Monthly		
Consolidated Balance Sheet of the Banking System	09/09	12/03/09	Monthly	Monthly	Monthly		
Interest Rates /3	Current	Current	Daily and Monthly	Daily and Monthly	Daily and Monthly		
Consumer Price Index	11/09	12/3/09	Monthly	Monthly	Monthly	O, O, LO, O	O, O, O, O, O
Revenue, Expenditure, Balance and Composition of Financing /4—General Government /5	Q2 2009	09/09	Quarterly	Quarterly	Quarterly	LO, LO, LO, O	LO, O, O, O, O
Revenue, Expenditure, Balance and Composition of Financing /4—Central Government	Q2 2009	09/09	Quarterly	Quarterly	Quarterly		
Stocks of Central Government and Central Government-Guaranteed Debt /6	Q2 2009	09/09	Quarterly	Quarterly	Quarterly		
External Current Account Balance	Q2 2009	09/09	Quarterly	Quarterly	Quarterly	O, O, O, O	O, O, O, O, O
Exports and Imports of Goods and Services	Q3 2009	11/09	Quarterly	Quarterly	Quarterly		
GDP/GNP	Q3 2009	11/09	Quarterly	Quarterly	Quarterly	O, O, O, O	LO, O, O, O, O
Gross External Debt	Q2 2009	09/09	Quarterly	Quarterly	Quarterly		
International Investment Position 7/	Q2 2009	09/09	Quarterly	Quarterly	Quarterly		

1/ Includes reserve assets pledged of otherwise encumbered.
2/ Pertains to contribution to EMU aggregate.
3/ Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
4/ Foreign, domestic bank, and domestic nonbank financing.
5/ The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
6/ Including currency and maturity composition.
7/ Includes external gross financial asset and liability positions vis-à-vis nonresidents.
8/ Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).
9/ Reflects the assessment provided in the data ROSC (published on January 10, 2008, and based on the findings of the mission that took place October 3-17, 2007) for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O); largely observed (LO); largely not observed (LNO); not observed (NO); and not available (NA).
10/ Same as footnote 9, except referring to international standards concerning (respectively) source data, assessment of source data, statistical techniques, assessment and validation of intermediate data and statistical outputs, and revision studies.

Statement by the IMF Staff Representative
January 11, 2010

1. **This statement summarizes developments in the Netherlands since the issuance of the staff report**. The additional information does not change the thrust of the staff appraisal.

2. **Staff has raised the projections for GDP growth in 2009–11**. This is the result of continuing improvements in the outlook for the major advanced countries and revised estimates indicating slightly stronger growth in Q3 2009.

- The latest data indicate that quarterly GDP growth in Q3 2009 was 0.5 percent, slightly higher than the earlier estimate of 0.4 percent, reflecting slightly higher expansion of exports, personal consumption and government spending. On this basis, we have revised our 2009 GDP growth projection to -4.0 percent from -4.2 percent.

- GDP growth for both 2010 and 2011 is now projected at 1.3 percent (compared to earlier projections of 0.7 percent and 0.6 percent respectively), owing mainly to a more sanguine outlook for the larger European economies.

- At the same time, the unemployment rate forecast for 2010 has been lowered from 6½ percent to 5 percent (Eurostat definition).

3. **The authorities' main think-tank—the CPB—has also revised its 2009–10 GDP growth projections upward.** 2009 GDP growth is expected at -4.0 percent (-4¾ percent earlier), while 2010 growth is projected at 1.5 percent (zero percent earlier). The central bank, however, is less optimistic, and for 2009, 2010, and 2011 it is projecting growth of -4 percent, 0.7 percent, and 1.2 percent, respectively.

4. **Consumer price inflation is rising from recent lows, house price deflation is moderating, and unemployment was stable in October.** Harmonized inflation rose to 0.7 percent (12-month change) in November from a recent low of -0.1 percent in July. It is now above the 0.5 percent euro area rate for November. House prices dropped 4.7 percent in November 2009 (12-month change), down from a 5.2 percent decline in October. The unemployment rate (Eurostat definition) was 3.7 percent in October, unchanged from September and well below the euro area average of 9.8 percent.

5. **Financial institutions have repaid significant amounts of state support.** ING paid back €5 billion out of the total assistance of €10 billion, SNS returned €185 million out of €750 million, and Aegon repaid €1 billion out of €3 billion.

Statement by Age Bakker, Executive Director, and Ester Barendregt, Senior Advisor to the Executive Director for the Kingdom of the Netherlands—Netherlands
January 11, 2010

Introduction
The Netherlands authorities thank staff for their appraisal of the Dutch economy as well as the informative exchange of views during the meetings.

The Dutch economy, as many others, has gone through a turbulent and challenging period. With its relatively large and international financial sector, the Netherlands was highly exposed to the global financial distress. Being an open economy, the country was particularly affected by the adverse economic developments following from the financial crisis.

For this governmental period, which started in 2007, the government based its budgetary framework on an estimated annual trend growth of 2 percent. It planned to improve the structural balance from a deficit of 0.2 percent of GDP in 2007 to a surplus of 1 percent in 2011. The budget memorandum for 2009, drafted right before the collapse of Lehman, still envisaged this budgetary path to be on track, foreseeing a surplus of 1.2 percent of GDP.

The financial crisis and the following deep recession have thoroughly changed the economic landscape. Negative growth was recorded for four quarters. Growth returned to positive numbers (quarter-to-quarter) in the third quarter of 2009 and is expected to further pick up. However, the outlook for the budget is exceptionally negative by Dutch standards: the budget deficit has increased sharply and is expected to rise further to 6 percent of GDP in 2010. In these circumstances, and against the backdrop of continued fiscal challenges related to ageing, measures have been taken to curb the deficit and a fundamental review of all government spending programs and the tax system is underway. These steps underline the government's commitment to the continued sustainability of Dutch public finances.

Response to the crisis
In the exceptional economic and financial climate, the government has taken a range of measures to address the immediate challenges which the crisis posed.

First, large-scale financial sector interventions were made (mostly in 2008), driven by the need to maintain financial stability, totaling over EUR 80 billion (adding to the public debt, although it is expected that these interventions will be mostly recouped when the economy recovers). Second, the government decided to let automatic stabilizers do their work, disregarding the normal deficit limit of 3%, and outlays for unemployment benefits were allowed to increase without undertaking compensating measures. Third, temporary and focused stimulus measures were taken as part of a coordinated European response. The combined effect of the stimulus measures and automatic stabilizers amounts to an increase of the budget deficit by EUR 50 billion over 2009 and 2010.

Economic outlook

It seems that the worst is behind us. Several indicators, including increased confidence among consumers and producers, point to improving economic conditions. At the same time some effects of the crisis may have a lagged impact in 2010, such as rising unemployment and deteriorating public finance. The most recent projections of the Netherlands Bureau for Economic Policy Analysis (CPB) are slightly better than staff forecasts for 2009 at -4 percent, and show a more substantial improvement for growth in 2010 at 1.5%. This more optimistic outlook is driven by the stark turnaround in world trade figures since mid-2009.

There are a few specific issues with respect to the economic outlook which merit attention.

First, the impact of the economic crisis on unemployment has been more modest than expected, so far. The government, in response to the crisis, has subsidized temporary reduced working hours arrangements, stimulating companies to keep employees while obliging them to invest in their education. The Netherlands being a knowledge-based economy dependent on highly educated labor, and labor market conditions being tight before the crisis, companies are hesitant to lay off employees. In this respect they were helped by an improved economic outlook and better than anticipated profitability, caused partly by lower incidental remunerations and fewer hours worked. Also, a stronger than expected discouraged worker effect is noticeable. Consequently, unemployment forecasts have been revised downward substantially, for 2009 to 5 percent (national definition, which is 1- 1.5 % higher than the ILO definition) and for this year to 6.5 percent.

Second, after considerable private wealth loss in 2009, private wealth is expected to recoup in 2010, contributing to consumption growth. The wealth loss in 2009 was due to substantial equity losses and a moderate decline in house prices. With the recent upward movement in stock prices and with house prices, as explained in staff's analytical note, broadly in line with fundamentals the outlook for private wealth is more positive for 2010.

Third, staff's analysis points to a credit crunch since 2007 and the likelihood that financial tightening may reduce economic growth in 2008-2010. We have our doubts about the firmness of these conclusions, since our statistics indicate that the year-on-year growth of loans granted by banks to non-financial institutions from mid-2007 through 2008 has been unusually high. That said, the Dutch authorities recognize the importance of a healthy credit market for restoring economic growth, and they have taken measures to stimulate granting of bank loans, especially to small and medium enterprises.

Fiscal exit and structural reforms

The dramatic deterioration of the fiscal situation has prompted the Dutch government to present a supplementary policy agreement in March 2009, accompanying the fiscal stimulus measures described above. The agreement sets out a medium-term framework

for stabilizing the economy in 2010, starting fiscal consolidation in 2011, and for further improving the budgetary position thereafter.

The Netherlands has a well-tested set of budgetary rules in place. These credible and transparent rules will be instrumental in achieving the necessary fiscal consolidation in the coming years. Moreover, the government has recently submitted to Parliament a Deficit Reduction Act to speed up the budgetary adjustment. This new rule, to be enshrined in national law, ensures progress towards medium-term objectives agreed in the context of the European excessive deficit procedures.

Staff recommends refinements of Dutch fiscal rules to attenuate their procyclicality. We agree that excluding cyclically sensitive outlays from the expenditure ceilings can be helpful. However, we fear that formalizing exceptional circumstances in which discretionary stimulus is allowed, may lead to increased political pressures. Since Dutch budgetary principles prescribe that the rules cannot be changed during the game (the governmental period), staff's recommendations are taken into consideration by a high-level advisory group on the budgetary policy framework for the next government.

For the fiscal exit the government is firmly committed to implement the recommendations in the framework of the European excessive deficit procedure. To this effect the government has put in place a strategy to reduce the deficit below the 3 percent threshold value by 2013 and to further improve the budgetary position towards agreed medium term objectives thereafter. Concrete measures undertaken by the government include the decision, in line with staff's recommendations, to withdraw the stimulus measures in 2011, provided that the economy has sufficiently recovered from the crisis (the latest economic forecasts indicate that this is likely the case). In addition, expenditure cuts of 0.3% of GDP are foreseen for 2011. Furthermore, the government intends to moderate wages in the public sector.

The government agrees with staff's assessment that the fiscal sustainability gap has increased considerably over the last years, due to the crisis and higher than expected increases in ageing-related spending. In this respect the government has proposed a sustainability package, amounting to 1.3% of GDP. First, the pension age will be increased from 65 to 66 years in 2020 and to 67 in 2025, giving employees and employers sufficient time to prepare. Privately funded pension plans (the second pillar) will also disburse 2 years later at the age of 67. Second, public reinsurance of healthcare will be phased out so that health insurers will bear greater risks, thus improving cost effectiveness. Third, mortgage-interest-deductibility for high-priced homes will be abolished above a certain cap. These measures will help to reduce the sustainability gap, which staff estimates at 8% of GDP.

However, the government agrees that more fundamental reform will be needed to maintain long-term sustainability. To that end, the government has engaged in a Fundamental Budgetary Review. Twenty working groups will make proposals for savings of up to 20 percent of budget expenditure. Such an approach has been very successful in the eighties in achieving a substantial reduction in the size of the public

sector. The working groups cover all areas of government policy, including housing, labor market, innovation, energy and safety. They are complemented by a study on the structure of the tax system. In this fundamental budgetary review, there are no taboos. In order to stimulate creativity and a critical attitude, working groups are chaired by current or former top-ranking officials from a different policy field. Moreover, each working group has an obligation to work out at least one scenario that could result in budgetary savings of 20 percent in their area. Working groups are expected to report in spring 2010, so that results can be incorporated in the preparations for the 2011 national budget where possible.

Financial sector situation and exit

The global financial crisis has hit the Dutch financial sector hard, and the authorities have had to take exceptional measures to maintain financial stability. We are pleased with the constructive remarks by staff on the Dutch approach.

Staff expresses concerns that Dutch banks – like several European counterparts – have low equity capital relative to unweighted assets. In our view, this can be largely explained by the use of IFRS accounting in Europe, which obliges banks to consolidate more assets on their balance sheet than their American peers who report according to US GAAP (the denominator of the capital ratio is therefore larger for European banks). Moreover, the risk-weighted capital level of Dutch banks remains well above the regulatory minimum. Nevertheless, the authorities agree that banks should continue to increase the level and quality of capital. Positive developments in this respect are that recent capital issuances, disinvestments and 'derisking' have already increased the BIS ratio by approximately 2 percent between 2008 and the third quarter of 2009. Moreover, after the large losses incurred in 2008, profitability has stabilized at break-even point in 2009.

The Dutch authorities envisage a phased and tailor-made exit strategy for the financial sector interventions. Systemic liquidity support should be unwound first, followed by guarantee schemes and then government participations and schemes for toxic assets. This would make the transition more gradual and thus help maintain financial stability.

More specifically, the following is envisaged. Government guarantees for bank bonds with a maturity of up to five years will be phased out gradually, striking a balance between continuing the facility as a back-up option and preventing extended support for unsustainable business models. The Dutch facility was recently extended until 30 June 2010, with an increase in the guarantee fee to create a gradual and price-based exit. Although the facility is expected to close in 2010, the further design, timing and sequencing of exit strategies will depend on market developments. A revival of alternative funding sources such as the covered bond market and securitization markets could accelerate the withdrawal of public support. Furthermore, exit strategies will need to be coordinated with other EU countries.

Capital injections and asset facilities have been designed in a flexible manner and contain institution-specific exit conditions and price-based incentives, such as increasing fee structures. A timely repayment of capital injections is desirable, but repayment should be

sustainable from a prudential perspective and should not endanger credit supply to the real economy. Dutch banks have recently repaid a significant part of the received government support, partly by issuing new equity which demonstrates the regained market access. End 2009, ING, AEGON and SNS REAAL repurchased respectively € 5 billion, € 1 billion and € 185 million of state owned Core Tier 1 securities.

As for acquired institutions (Fortis Bank Netherlands / ABN AMRO Bank Netherlands, insurance company ASR), the government is committed to re-privatize these as soon as possible. As a precondition, the institutions should first be able to obtain medium term financing at reasonable cost and markets should be sufficiently stabilized. The sale of Fortis Bank Netherlands / ABN AMRO Bank Netherlands is not expected before 2011. Finally, the government will ensure that any exit strategies are communicated to market participants well in advance. Clarity is an important condition to further improve market access of financial institutions, and credible exit strategies require realistic deadlines.

Staff welcomed our authorities' efforts to create a voluntary private sector code of conduct. Under this code, remuneration is to be based on long-term performance; compensation committees are to develop explicit corporate remuneration policies. It is worth mentioning that the code introduces a relative cap on executive remuneration. This relative cap requires that executive remuneration should remain below the average remuneration of the relevant peer group.