

# GLOBAL MACROECONOMIC SCENARIOS AND WORLD TRADE STATISTICS AND FORECAST

FOR THE  
PANAMA CANAL AUTHORITY

Contract SAA-146531

## Global Macroeconomic Outlook: Worst Case

- World
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- Taiwan
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- Germany
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- Ecuador
- Chile

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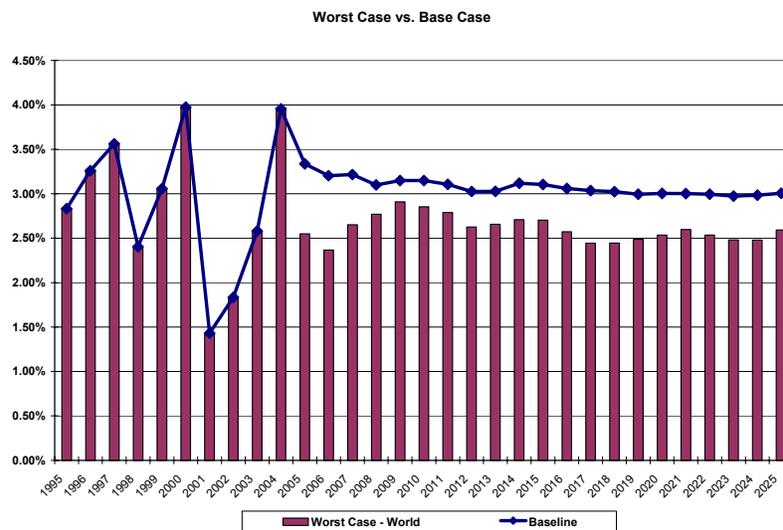
## World Macroeconomic Outlook

Global Insight used its global macroeconomic scenario model to generate a series of scenarios for the world, and the scenario driven by the assumptions below is called the Worst Case scenario. Global Insight gives this scenario a 15% probability. The driving assumptions are:

- Productivity growth is 0.5 percentage points lower every year.
- Long-term interest rates are 1 percentage point higher every year.
- World oil prices are 10 \$/barrel higher every year.

All of the scenario work was developed around the base case, which has a 70% probability. Therefore, the world macroeconomic outlook, below, shows the comparisons of this best case with the baseline outlook. Global Insight gives this scenario a 15% probability.

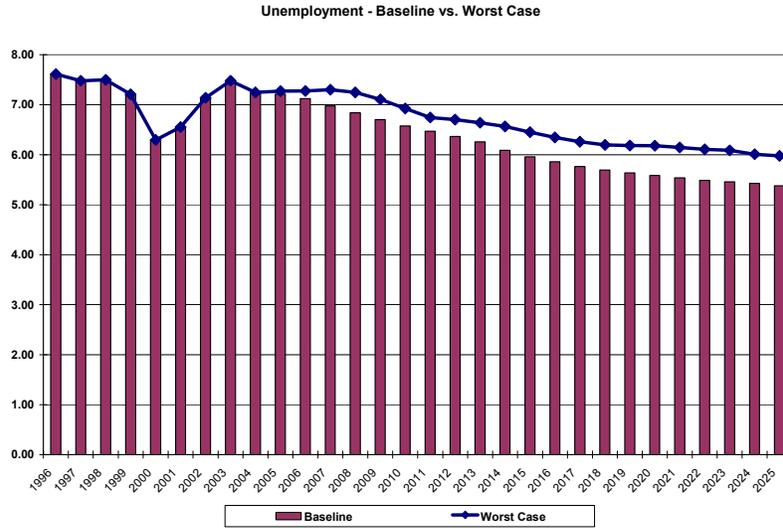
In this weaker outlook, real world averages only 2.6% annually over the 2005-2025 period, representing a reduction in 2025 of about \$17 trillion dollars in nominal terms in that year.



The weaker economic outlook is spread across most of the major industrialized nations (see below) with depressing effects on the economic performance of those developing nations that depend on economic growth in the industrialized world.

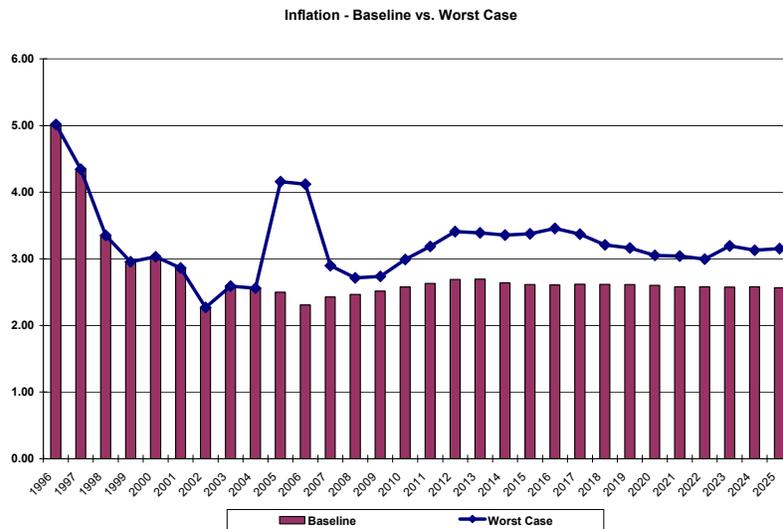
The reader is referred to the report covering the Baseline Case to learn about the details of the baseline forecast against which this worst case scenario is compared.

Under the worst case assumptions, unemployment worldwide does not improve as quickly in the long term. This can be seen in the chart below, where the line representing the rate of unemployment is higher than the baseline projection.



When economic output slows, the models produce less demand for labor, which translates into a high rate of unemployment.

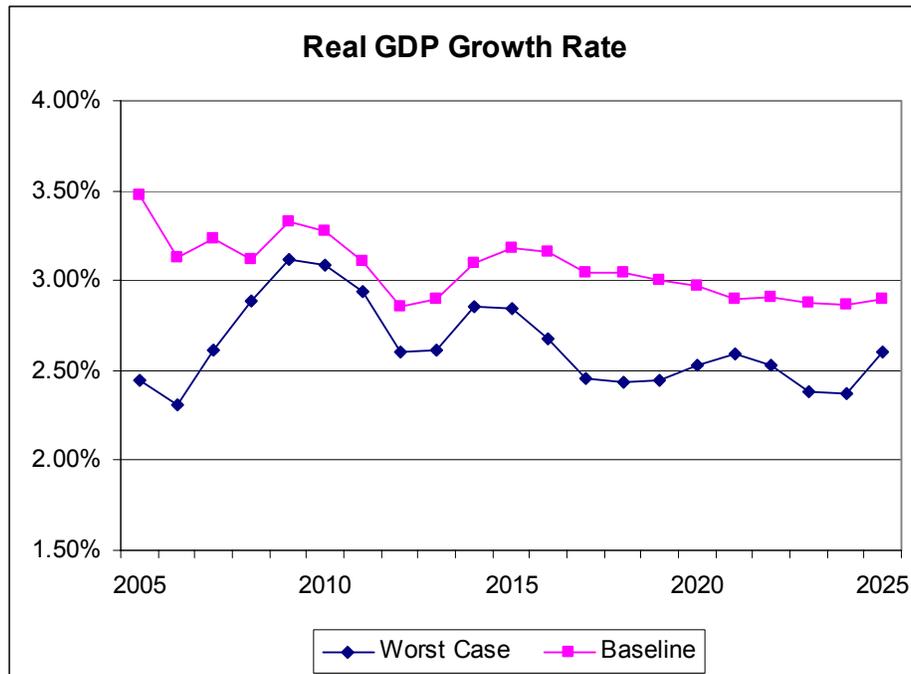
For inflation, the weaker scenario produces higher prices, especially since one of the main assumptions behind this scenario is the higher price of oil, which later feeds through the economy. This higher rate of price changes is clearly shown in the chart below. The weaker rate of economic output in this scenario eventually pulls prices down but still not to the level of the baseline, most probable scenario.



## I. North America

### United States

US growth is reduced significantly in the worst case scenario: real GDP growth out to 2025 falls by 0.4 percentage point to 2.6%. This means that at the end of the forecast period real GDP is more than 8% lower than baseline, a reduction of \$1,715 billion in constant 2000 dollars.



Interestingly, nominal GDP growth is likewise reduced by 0.4 percentage point to 5.1%. This means that inflation, at 2.4% annually for the GDP deflator (or 2.6% for the CPI) is essentially unchanged from the baseline. This implies that the effect of higher oil prices is offset by reduced price pressure due to slower growth. In addition, demand policies, especially monetary policy, respond to maintain a certain nominal growth rate. The sectoral composition of the economy is nearly the same as the baseline, except that fixed investment is slightly lower as a share of GDP—reflecting to the lower rate of return arising from lower productivity—while consumption and imports are marginally higher. The trade balance is generally slightly worse, averaging -1.9% of GDP compared to -1.8% baseline; however, in both cases the balance eventually ends up at a small surplus of 0.1% of GDP in 2025.

The effect on wages is the mirror image of the best case. Wages grow at a slower rate, on average 4.3%. This is 0.3 percentage points slower than baseline, whereas nominal GDP growth is lower by 0.4. So wages as a share of the economy tend to increase over time.

And the unemployment rate is, not surprisingly, worse, up by 0.2-0.3 percentage points over the baseline jobless rate. The difference actually peaks in 2008, at 5.65% vs. 5.25% baseline, reflecting the adjustment lags in both policies and the labor market in response to the negative assumptions.

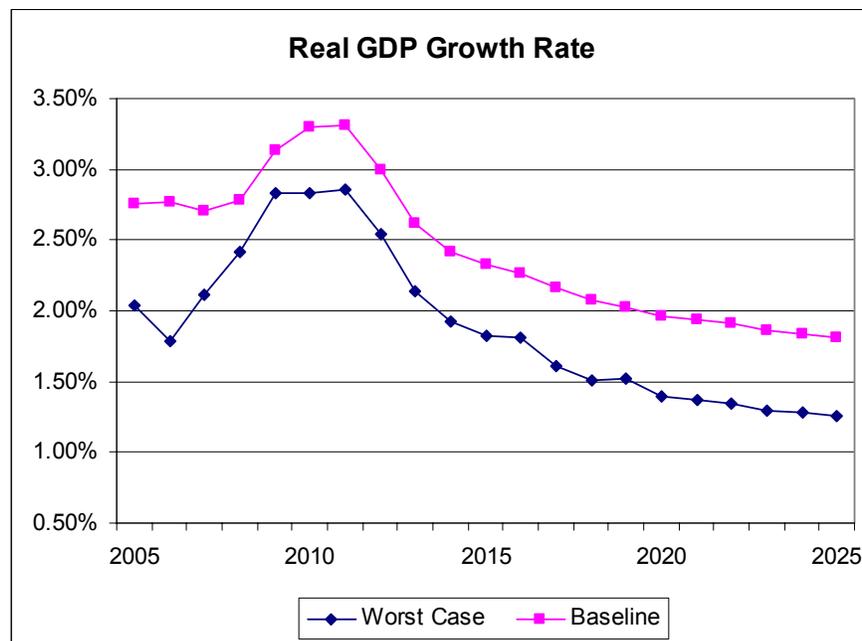
Lastly, the government budget deficit is worse, averaging -3.8% of GDP vs. -2.4% in the baseline. This follows from the fact that slower growth reduces tax revenues, while higher unemployment necessitates higher expenditures. The profile is very different as well: the baseline fiscal deficit as a percent of GDP improves consistently through to 2012 then levels off at 2%; whereas the worst case profile rises, falls, then rises before leveling off at 3.5%.

## USA

					Avg. Annual Compound Growth		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	9,816.98	12,276.78	15,479.11	32,930.09	4.6	4.7	5.2
Nominal GDP per capita, US dollars	34,714	41,365	49,914	93,915	3.6	3.8	4.3
Real GDP, billion real 2000 US dollars	9,816.66	11,102.55	12,748.27	18,712.31	2.5	2.8	2.6
Real GDP per capita, real 2000 US dollars	34,713	37,408	41,108	53,367	1.5	1.9	1.8
Real private consumption, billion real 2000 US dollars	6,739.06	7,801.82	8,858.98	12,547.22	3.0	2.6	2.3
Real government consumption, billion real 2000 US dollars	1,417.03	1,602.70	1,655.03	1,834.29	2.5	0.6	0.7
Real fixed investment, billion real 2000 US dollars	1,983.47	2,234.29	2,530.78	4,315.81	2.4	2.5	3.6
Real exports, billion real 2000 US dollars	1,096.23	1,164.56	1,846.83	4,830.95	1.2	9.7	6.6
Real imports, billion real 2000 US dollars	1,475.52	1,766.82	2,174.74	4,462.61	3.7	4.2	4.9
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	98.02	106.69	115.27	123.26	1.7	1.6	0.4
Mining	121.33	126.79	131.00	142.50	0.9	0.7	0.6
Manufacturing	1,542.95	1,570.27	1,821.16	2,566.62	0.4	3.0	2.3
Utilities	189.29	209.79	237.34	325.46	2.1	2.5	2.1
Construction	435.91	439.04	494.92	653.90	0.1	2.4	1.9
Wholesale & Retail Trade	1,515.56	1,990.06	2,292.00	3,285.87	5.6	2.9	2.4
Transport & Communication	572.92	667.43	802.64	1,291.53	3.1	3.8	3.2
FIRE	3,109.55	3,603.38	4,210.64	6,544.32	3.0	3.2	3.0
Other Services	2,231.43	2,595.77	2,900.70	3,917.41	3.1	2.2	2.0
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	68.7	70.0	69.7	70.0	1.3	-0.3	0.3
Government consumption share of GDP	14.4	15.4	14.3	11.6	0.9	-1.1	-2.7
Fixed investment share of GDP	20.2	19.9	18.8	18.0	-0.3	-1.1	-0.8
Exports share of GDP	11.2	10.2	12.9	18.2	-1.0	2.7	5.2
Imports share of GDP	15.0	15.9	16.0	18.1	0.8	0.2	2.0
Net exports share of GDP	-3.9	-5.7	-3.1	0.1	-1.8	2.6	3.2

## Canada

Two assumptions of the worst case scenario—slower productivity growth and higher interest rates—hit Canada hard, both directly and by their negative impact on Canada's trading partners. These negatives outweigh the mild benefits of the third assumption, higher oil prices that stimulate extraction and exploration of oil. As a result, Canada's real GDP growth rate averages 1.9% per year, roughly one-half percentage point lower than the baseline growth rate. Thus, by 2025, real output is more than 10% lower than baseline, representing a loss of \$139 billion in real 2000 dollars. Nominal GDP shows a similar slowdown in the medium term, dropping by 0.5 percentage point on average, but in the long run the difference declines to 0.4 percentage point (3.9% in worst case vs. 4.3% in baseline). This indicates that demand policies, mainly monetary, are to some extent targeting nominal GDP growth. It also implies that inflation is slightly higher in the worst case, as expected given the reduced productivity and higher oil prices: prices rise on average 2.1% per year, compared to 1.9% baseline.



The assumption about lower productivity growth cuts into the growth rate in wages. Higher interest rates cause a shift away from spending to saving on the part of households. Higher oil prices depress consumer spending even more. Since the higher interest rates raise the user cost of capital and both domestic and external demand is weaker, business investment suffers. The negative impact on investment is moderated by a positive influence of higher oil prices on capital formation in the oil patch. As economic growth in Canada's trading partners weakens, so do Canadian exports. Import growth is also lower in the worst case scenario than in the baseline, reflecting both the weaker domestic demand and the lower demand for imported inputs by exporters.

The composition of the economy changes slightly, with real consumption in 2025 higher as a share of GDP while the real external balance is lower by roughly 1 percent of GDP. These changes stem mainly from the fact that the domestic side of the economy is hurt less than external demand. The domestic side receives some benefit from higher oil prices because a positive international trade balance in oil and other energy products leads to a positive wealth transfer from abroad.

Real export growth is lower in the worst case. In nominal terms, however, the trade balance is slightly above baseline, averaging 2.2% of nominal GDP vs. 1.7% baseline; this equates to roughly \$9 billion per year. The difference between the real and nominal balances reflects Canada's terms of trade improvement, specifically higher prices for its oil exports. This also explains the behavior of the exchange rate: the Canadian dollar is stronger than the baseline throughout much of the forecast period, as the rest of the world must pay more for Canadian commodities; adjustments then weaken the Canadian dollar, which becomes weaker than baseline in 2017; and by 2025 the exchange rate is at roughly the same level as baseline.

The job market worsens in the worst case scenario: the medium term rise and fall in the unemployment rate become more pronounced, with the jobless rate reaching 7.8% in 2008 compared to 7.4% in the baseline. The subsequent improvement is also slower, with the unemployment rate leveling at roughly 7.0% vs. 6.7% baseline. Personal income and wages also grow more slowly, at 4.4% and 3.5% respectively, both lower than baseline by 0.3 percentage points. Lastly, the government's fiscal balance deteriorates significantly. Whereas the baseline balance moves gradually from surplus to deficit, the worst case balance drops into deficit within three years. By 2025 it is approaching unsustainable levels of -3.3% of GDP, compared to -1.7% for the baseline.

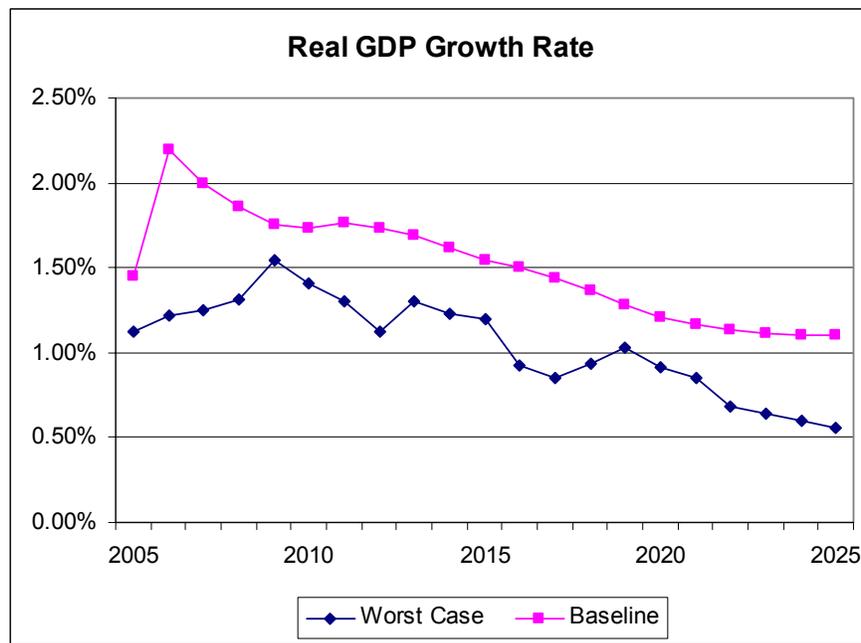
## CANADA

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	724.75	1,098.65	1,433.02	2,682.07	8.7	5.5	4.3
Nominal GDP per capita, US dollars	23,646	34,129	42,973	73,951	7.6	4.7	3.7
Real GDP, billion real 2000 US dollars	724.69	815.73	918.18	1,184.25	2.4	2.4	1.7
Real GDP per capita, real 2000 US dollars	23,644	25,340	27,534	32,653	1.4	1.7	1.1
Real private consumption, billion real 2000 US dollars	401.22	463.26	527.21	689.01	2.9	2.6	1.8
Real government consumption, billion real 2000 US dollars	134.69	157.03	182.64	234.36	3.1	3.1	1.7
Real fixed investment, billion real 2000 US dollars	138.86	170.47	202.75	262.41	4.2	3.5	1.7
Real exports, billion real 2000 US dollars	330.28	338.90	381.09	618.61	0.5	2.4	3.3
Real imports, billion real 2000 US dollars	288.64	318.26	379.30	629.67	2.0	3.6	3.4
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	15.33	15.87	18.05	21.86	0.7	2.6	1.3
Mining	40.48	44.90	51.21	64.30	2.1	2.7	1.5
Manufacturing	133.64	140.01	157.55	198.24	0.9	2.4	1.5
Utilities	18.59	18.19	20.68	28.43	-0.4	2.6	2.1
Construction	33.54	41.97	47.65	64.77	4.6	2.6	2.1
Wholesale & Retail Trade	89.62	113.23	128.89	174.48	4.8	2.6	2.0
Transport & Communication	45.53	52.45	60.67	94.05	2.9	3.0	3.0
FIRE	166.37	190.88	215.97	291.99	2.8	2.5	2.0
Other Services	129.57	144.50	161.61	214.87	2.2	2.3	1.9
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	55.4	55.7	57.7	59.3	0.3	1.9	1.7
Government consumption share of GDP	18.6	19.4	20.6	21.3	0.8	1.2	0.7
Fixed investment share of GDP	19.2	19.8	20.0	18.5	0.6	0.2	-1.5
Exports share of GDP	45.6	38.2	32.8	32.7	-7.3	-5.4	-0.2
Imports share of GDP	39.8	31.8	31.6	32.5	-8.0	-0.3	1.0
Net exports share of GDP	5.7	6.4	1.3	0.1	0.7	-5.1	-1.1

## II. Asia

### Japan

In the worst case scenario, the combination of lower productivity growth, higher interest rates and higher oil prices has a significant negative impact on Japan: the average annual growth rate of real GDP through 2025 is only 1.0%, compared to the baseline average of 1.5%. Note that the major negative impact comes from lower productivity growth, both the direct effect on Japan, as well as the repercussion effect on exports due to slower world growth. The damage is even greater during the medium term, 2005-2010, with annual growth rates lowered by nearly 0.6 percentage points. The actual level of real GDP in 2025 is 9% lower than the baseline, a difference of \$620 billion in constant 2000 dollars. As in the baseline and best case, GDP growth trends down over time due to demographic changes and lower savings rates.



The inflation rate in the worst case is higher in the first two years, as slower-growing output lags behind demand and higher oil prices feed through the economy; this subsequently reverses as monetary policy brings inflation back toward baseline. So the average inflation rate over the forecast horizon is roughly the same, 2.1% for the consumer price index and 1.4% for the GDP deflator. Regarding the sectoral composition of the economy, the main change is, as with the best case scenario, in the traded goods sector; but here the effects are opposite, since exports are disproportionately affected by slower productivity growth. The growth rate of real exports over the long term, 1.6% per

annum, is 0.65 percentage point lower than the baseline growth rate. The difference is even larger over the first five years, with exports growing more slowly than baseline by over 0.7 percentage point. Imports suffer a smaller decline, with growth to 2025 falling by 0.35 percentage point. But high oil prices tend to raise nominal imports; as a result, the nominal trade balance goes into deficit in 2011, compared to 2016 in the baseline; by 2025 the trade deficit reaches \$221 billion as opposed to \$119 in the baseline (note: the trade balance in real terms remains in surplus in all three scenarios; the deficit in nominal terms reflects Japan's falling terms of trade over time).

Consumption spending as a share of GDP is higher in the worst case—63.2% in 2025 vs. 61.8%—but the actual levels are lower, due to slower growth. As expected, this is the opposite of the best case scenario; similarly, capital investment and the trade balance are the mirror image of the best case, with both lower as a share of GDP than the baseline. This reflects the assumption of lower productivity growth, which hits these sectors—traditionally Japan's most successful industries—the hardest.

With slower world growth abroad and lower productivity domestically, the resulting drop in demand for Japan's exports means the trade gap becomes less sustainable and generates a greater yen appreciation. But the effect is rather small: by 2012 the yen is only 1.2% stronger than in the baseline, and the exchange rate largely returns to baseline a few years thereafter. So the larger trade deficit at the end of the forecast horizon is not due to exchange rate effects but rather to reduced growth rates.

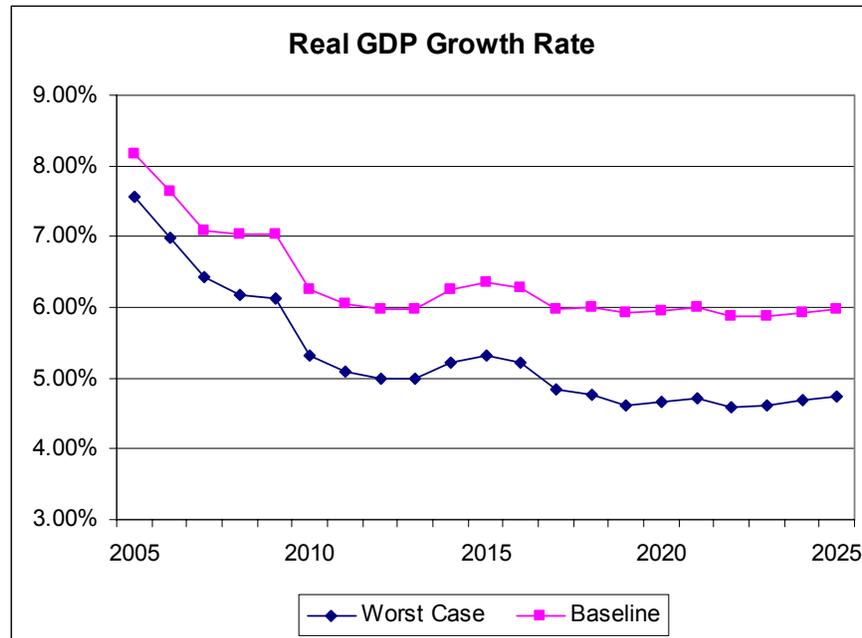
The employment environment is understandably worse in this scenario, with slower growth and lower productivity reducing the demand for labor. Consequently, in the medium term, the unemployment rate rises to the mid-5% level, which is 0.4 percentage point above the baseline. Market adjustments eventually take this down to roughly 5%, where it levels off, but this continues to be 0.2-0.3 percentage point above baseline. Lastly, the government fiscal deficit worsens to 6% of GDP in the medium term. This is roughly 1.5 percentage points worse than baseline, a difference that continues into the long term, leaving the deficit at 5.5% of GDP in 2025.

## JAPAN

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	4,750.28	5,099.32	6,705.50	9,986.13	1.4	5.6	2.7
Nominal GDP per capita, US dollars	37,449	39,856	52,384	81,789	1.3	5.6	3.0
Real GDP, billion real 2000 US dollars	4,745.85	4,999.68	5,346.61	6,154.41	1.0	1.4	0.9
Real GDP per capita, real 2000 US dollars	37,414	39,077	41,768	50,406	0.9	1.3	1.3
Real private consumption, billion real 2000 US dollars	2,651.47	2,788.60	3,045.51	3,665.60	1.0	1.8	1.2
Real government consumption, billion real 2000 US dollars	779.61	867.90	989.55	1,285.90	2.2	2.7	1.8
Real fixed investment, billion real 2000 US dollars	1,250.24	1,191.72	1,156.31	1,119.53	-1.0	-0.6	-0.2
Real exports, billion real 2000 US dollars	512.72	658.74	746.87	982.57	5.1	2.5	1.8
Real imports, billion real 2000 US dollars	444.84	520.98	621.92	937.22	3.2	3.6	2.8
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	65.97	63.17	62.58	59.33	-0.9	-0.2	-0.4
Mining	6.14	5.69	5.26	4.58	-1.5	-1.6	-0.9
Manufacturing	1,030.32	1,030.20	1,069.09	1,222.27	0.0	0.7	0.9
Utilities	175.29	187.22	204.74	258.36	1.3	1.8	1.6
Construction	352.01	291.13	301.17	345.45	-3.7	0.7	0.9
Wholesale & Retail Trade	756.00	789.76	832.47	955.54	0.9	1.1	0.9
Transport & Communication	302.68	316.11	347.34	455.25	0.9	1.9	1.8
FIRE	1,276.17	1,359.07	1,471.12	1,734.36	1.3	1.6	1.1
Other Services	1,047.49	1,183.85	1,256.96	1,477.29	2.5	1.2	1.1
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	55.8	57.3	59.4	63.2	1.4	2.1	3.9
Government consumption share of GDP	16.4	17.9	19.3	22.6	1.5	1.4	3.3
Fixed investment share of GDP	26.4	23.4	20.6	15.8	-3.0	-2.7	-4.9
Exports share of GDP	10.8	12.8	11.8	10.9	2.0	-1.0	-0.8
Imports share of GDP	9.4	11.6	11.7	13.1	2.3	0.0	1.5
Net exports share of GDP	1.4	1.2	0.1	-2.2	-0.3	-1.1	-2.3

## China

In the worst case scenario, China's real GDP growth will average 5.3% between 2005 and 2025, versus 6.4% in the base case. Mirroring the best case scenario, productivity loss is the main reason for China's economic woes in the worst case. And the biggest culprit for falling productivity is the lack of progress in economic reform.



China's economic development has already hit a bottleneck in the mid-1990s, when it became apparent that the country's massive state-owned enterprises (SOEs) and state banking sector were becoming too inefficient. Moreover, since the banking sector was dominated by state banks, much of China's financial resources were channeled by these banks to the inefficient SOEs. This has not only generated enormous bad loans in the state banks, but also crowded out growth of China's vibrant private economy.

Recognizing these problems, Beijing has tried to reform these structural flaws since 1997. 's But the government's concerns over maintaining social stability, as well as its unwillingness to relinquish state control over the SOEs and the banking sector, have pushed the latest round of reforms to continue in the gradualist approach that the government adopted when it first opened up its market in the late 1970s. Unfortunately, these partial reforms have consumed many valuable resources while leaving the structural problems more or less intact. And in the worst case, this muddling-through continues and reform success is dragged out much longer than in the base case. In addition, higher oil prices and higher interest rates would make reform much more painful, thus causing the government to slow down reform even more.

Private consumption growth averages 5.9% in 2005-2025 in the worst case scenario, compared with base case's 6.9% in the same period. Slower economic growth will not only reduce income growth, but also dull job creation. Furthermore, without restructuring the state banks, the private sector will continue to save excessively as it will continue to have difficulty obtaining finances for investment. Consequently, investment growth is even worse off, averaging 6.2% between 2005 and 2025, 1.3% lower than the average rate in the base case. The combination of an un-restructured state banking sector and higher interest rates will be particularly negative to private investment.

Similar to the best case, lagging reform will have less pronounced negative impact on China's trade sector, since the trade sector has always been the most efficient segment in the Chinese economy, given its exposure to foreign competition. Export growth in the worst case averages 9.0% in 2005-2025, compared with 9.9% in the base case. Import growth in the worst case averages 9.8% between 2005 and 2025, 1.1% lower than the base case.

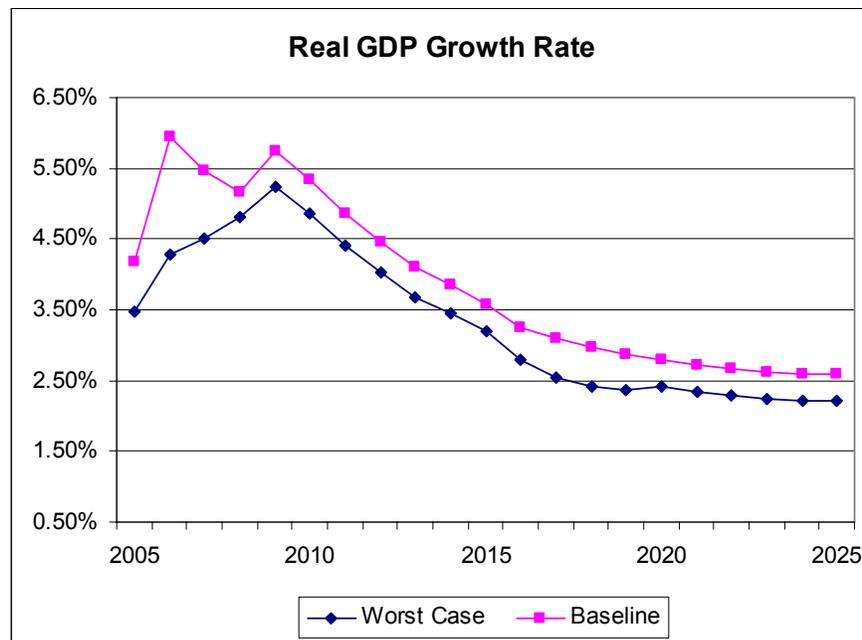
Inflation will be higher in the best case, despite weaker domestic demand and higher interest rates. Slower productivity growth and higher oil prices will offset these deflationary forces. Consumer price inflation in the worst case averages 3.9% in the 2005-25 period, compared with 3.0% of the base case average inflation rate.

## CHINA

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	1,080.73	1,797.54	2,827.43	6,250.14	10.7	9.5	5.4
Nominal GDP per capita, US dollars	856	1,374	2,105	4,368	9.9	8.9	5.0
Real GDP, billion real 2000 US dollars	1,080.73	1,609.19	2,174.25	4,437.62	8.3	6.2	4.9
Real GDP per capita, real 2000 US dollars	856	1,230	1,618	3,101	7.5	5.6	4.4
Real private consumption, billion real 2000 US dollars	517.88	598.32	825.39	1,936.46	2.9	6.6	5.8
Real government consumption, billion real 2000 US dollars	141.39	219.85	323.84	796.07	9.2	8.1	6.2
Real fixed investment, billion real 2000 US dollars	394.08	824.57	1,177.43	2,651.36	15.9	7.4	5.6
Real exports, billion real 2000 US dollars	279.56	910.91	1,677.49	4,321.82	26.6	13.0	6.5
Real imports, billion real 2000 US dollars	250.68	890.77	1,705.49	4,877.01	28.9	13.9	7.3
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	176.70	192.43	199.21	249.62	1.7	0.7	1.5
Mining	66.41	88.09	95.59	117.58	5.8	1.6	1.4
Manufacturing	372.83	697.51	1,012.68	2,221.02	13.3	7.7	5.4
Utilities	32.43	57.22	72.92	137.76	12.0	5.0	4.3
Construction	71.12	105.14	139.26	293.87	8.1	5.8	5.1
Wholesale & Retail Trade	98.31	130.57	172.72	372.72	5.8	5.8	5.3
Transport & Communication	65.33	83.05	109.02	242.30	4.9	5.6	5.5
FIRE	100.34	138.36	178.82	367.42	6.6	5.3	4.9
Other Services	103.62	116.44	129.37	212.47	2.4	2.1	3.4
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	47.9	37.3	37.3	40.8	-10.6	-0.1	3.5
Government consumption share of GDP	13.1	15.3	12.5	17.8	2.2	-2.8	5.3
Fixed investment share of GDP	36.5	49.4	47.2	38.9	12.9	-2.2	-8.2
Exports share of GDP	25.9	48.4	63.4	64.6	22.5	15.1	1.1
Imports share of GDP	23.2	51.1	61.0	62.2	27.9	9.9	1.3
Net exports share of GDP	2.7	-2.7	2.5	2.3	-5.4	5.2	-0.1

## South Korea

In the worst case scenario, Korea's medium term growth is lowered by one-half percentage point, from 5.6% to 5.1%. This reflects the fact that baseline growth was largely generated by rising productivity, so the worst case assumption of slower productivity gains has a large, negative impact on Korea. This supply-side effect similarly translates into lower incomes and thus reduced demand growth; and the corresponding effect in the rest of the world leads to lower export growth for Korea. Lastly, lower incomes implies less purchases from abroad, thus lower the uptrend in imports as well. So the trade balance and all components are reduced in similar proportion, and thus are relatively unchanged as a share of GDP.



Note that the short term effect is very strong, with GDP growth in 2006 nearly two percentage points lower in the worst case. This reflects the shock to the economy as the worst case assumptions initially take effect. But monetary policy then becomes more expansionary, allowing growth to partially recover. In the medium and long term, however, monetary policy must return to a more neutral stance; otherwise aggressive easing would worsen inflation, by stimulating demand when supply-side output growth is lower. Fiscal policy also becomes more accommodating, in the sense that the budget deficit increases, but that is mainly due to lower tax revenues rather than increased spending; by 2025 the fiscal deficit is 1.8% of GDP, compared to 0.2% in the baseline.

The rate of inflation is largely unchanged compared to the baseline. This is driven by two opposite effects: the slower economy, which eases upward pressure on prices; and the \$10 per barrel hike in the price of oil, which tends to worsen inflation. In addition, the Bank of Korea targets a moderate inflation rate of 2.0-2.5%; assuming the BOK is successful, then price increases—especially over the long term—will tend toward this

target regardless of external conditions. Also note that the path of the exchange rate is essentially the same as the baseline. The factors tending to weaken the won—lower external demand for exports, the higher price of oil—are offset by factors that strengthen the won—higher Korean interest rates, and reduced purchases of imports due to lower income growth.

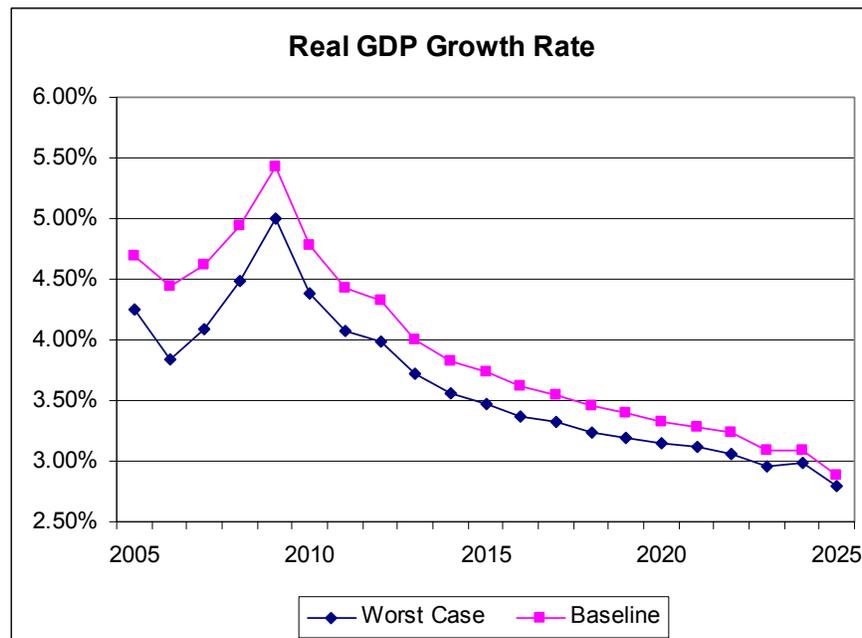
In the labor market, unemployment is higher both due to the initial shock caused by the worst case assumptions, and in the medium and long terms due to lower productivity growth which lowers the marginal product—and thus demand—for workers. Consequently, the jobless rate reaches 3.9% in 2008, compared to 3.5% baseline. The differential then moderates somewhat thanks to labor market adjustments, mainly reduced wage increases. But in the long term, the worst case scenario sees labor conditions worsening at a faster rate, yielding an unemployment rate of 4.7% in 2025 compared to 4.2% in the baseline.

## KOREA

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	511.96	762.94	1,095.51	2,262.64	8.3	7.5	5.0
Nominal GDP per capita, US dollars	10,861	15,696	22,064	44,670	7.6	7.0	4.8
Real GDP, billion real 2000 US dollars	511.87	637.04	816.62	1,244.27	4.5	5.1	2.8
Real GDP per capita, real 2000 US dollars	10,859	13,106	16,447	24,565	3.8	4.6	2.7
Real private consumption, billion real 2000 US dollars	275.99	318.20	418.45	648.12	2.9	5.6	3.0
Real government consumption, billion real 2000 US dollars	61.89	75.31	90.88	122.85	4.0	3.8	2.0
Real fixed investment, billion real 2000 US dollars	159.05	189.32	245.26	344.10	3.5	5.3	2.3
Real exports, billion real 2000 US dollars	209.11	336.36	457.94	744.62	10.0	6.4	3.3
Real imports, billion real 2000 US dollars	192.84	283.89	395.85	619.46	8.0	6.9	3.0
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	21.68	21.23	23.46	27.55	-0.4	2.0	1.1
Mining	1.59	2.18	2.25	2.23	6.4	0.7	-0.1
Manufacturing	144.38	190.28	242.14	383.87	5.7	4.9	3.1
Utilities	12.71	17.06	22.48	39.41	6.1	5.7	3.8
Construction	36.95	46.84	60.44	98.40	4.9	5.2	3.3
Wholesale & Retail Trade	55.89	62.50	80.02	126.34	2.3	5.1	3.1
Transport & Communication	30.86	45.13	57.81	92.99	7.9	5.1	3.2
FIRE	87.52	109.21	141.61	224.01	4.5	5.3	3.1
Other Services	69.70	88.88	108.22	145.46	5.0	4.0	2.0
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	53.9	52.5	54.5	56.4	-1.4	2.0	2.0
Government consumption share of GDP	12.1	13.7	14.0	14.3	1.6	0.4	0.3
Fixed investment share of GDP	31.1	30.0	29.7	27.0	-1.1	-0.3	-2.7
Exports share of GDP	40.8	42.0	36.4	32.5	1.2	-5.6	-3.9
Imports share of GDP	37.7	38.4	34.6	30.6	0.8	-3.9	-3.9
Net exports share of GDP	3.2	3.6	1.8	1.8	0.4	-1.8	0.0

## Hong Kong

Hong Kong's real GDP is expected to grow at a slower rate in the worst case scenario, compared with our baseline forecast. This is due to the assumption that Hong Kong slowly losing its status as the gateway to the Chinese market. Indeed, it has been taking place as China's major cities, in particular those of coastal cities such as Shanghai, develops. In addition, with China's accession to the World Trade Organization (WTO), its mass market is opening up with reducing regulation. These would gradually reduce the numbers of foreign investors and multinationals setting up operations in Hong Kong, as they invest in China straight away. As a result, this would lead to lower productivity growth in Hong Kong: real GDP is projected to grow by a slower 3.4% for the whole forecast period, compared with an average of 3.9% in the baseline forecast. In the worst case scenario, real GDP would expand 4.2% in 2005-2010 and 3.1% in 2011-2025.



Consumer confidence is expected to fall, undermined by a tighter monetary condition, higher oil prices, higher inflationary pressure, and a weaker employment condition. Falling personal income and a reduction in tourist arrivals that are implied by slower foreign economic growth would also dampen consumer sentiment. As a result, we expect consumers to spend at a slower rate of 3.1% in 2005-2025 in the worst case, compared with an average of 3.5% in the baseline.

Consumer price inflation would accelerate in the worst case scenario as compared with the baseline, due to not only a constant increase in oil prices but also falling productivity that would fan up costs. While a tighter monetary environment and weaker domestic

demand could curb some of the inflationary pressure, we believe that they would not be enough to fully reduce the cost-push pressure. As a result, consumer price inflation would increase to an average of 2.6% for 2005-2025 in the worst case, compared with 2.1% projected in the baseline. Meanwhile, the labor market would worsen in this case, as business confidence deteriorates. Unemployment rate is projected to stand at 5.1% in 2005-2025, higher than 4.8% in the baseline.

Average growth in real fixed investment is also reduced in the worst case scenario, as a result of higher interest rates, surging costs, as well as falling direct investment. In the worse case scenario, real fixed investment is projected to expand by 4.8% for the whole forecast period, lower than the baseline's 5.3%. In nominal terms, fixed investment is expected to grow by 6.1% in 2005-2025, compared with 6.6% in the baseline forecast. Meanwhile, as both business and private sectors weaken, tax collection would be eroded, leading to lower fiscal balance and government consumption, which is expected to rise by 0.6% in 2005-2025, down from the baseline's 0.9%.

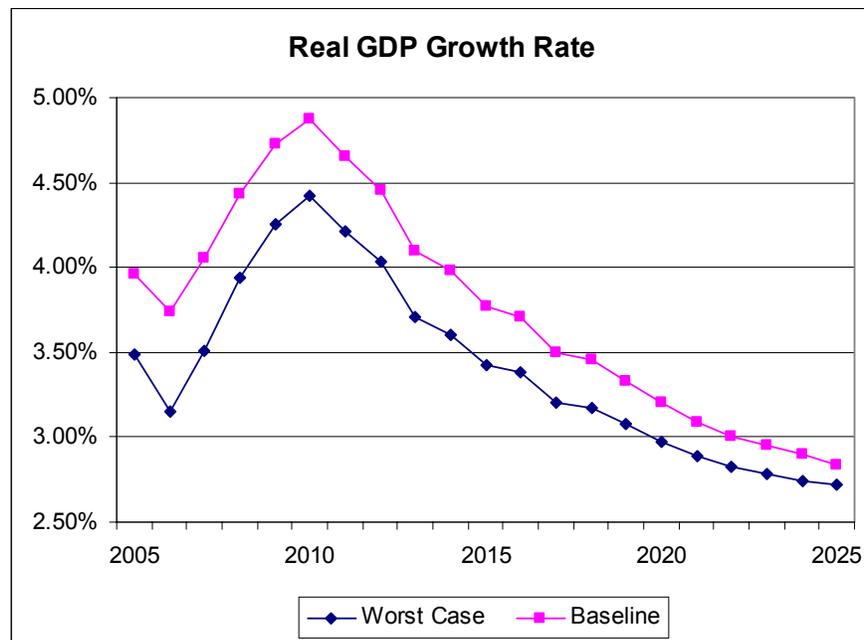
As world economic growth also takes a hit in the worse case scenario, external demand for Hong Kong's goods and services would be reduced. In addition, as China's infrastructure and logistics network develops, less goods would be taking the route through Hong Kong as the costs are higher than shipping directly from China's major coastal cities. As a result, exports are expected to increase by a slower 5.1% in 2005-2025, down from an average of 6% in the baseline. Concurrently, import growth is projected to weaken, to 5.2% in 2005-2025, compared with the baseline's 6.2%, as domestic demand falls.

## HONG KONG

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	165.34	169.10	221.78	486.50	0.5	5.6	5.4
Nominal GDP per capita, US dollars	24,807	24,678	31,551	64,134	-0.1	5.0	4.8
Real GDP, billion real 2000 US dollars	165.34	196.18	242.85	397.06	3.5	4.4	3.3
Real GDP per capita, real 2000 US dollars	24,807	28,631	34,549	52,343	2.9	3.8	2.8
Real private consumption, billion real 2000 US dollars	97.56	107.68	130.81	203.43	2.0	4.0	3.0
Real government consumption, billion real 2000 US dollars	15.42	17.18	17.71	19.81	2.2	0.6	0.8
Real fixed investment, billion real 2000 US dollars	44.58	48.86	63.94	129.31	1.8	5.5	4.8
Real exports, billion real 2000 US dollars	240.57	356.07	481.27	992.02	8.2	6.2	4.9
Real imports, billion real 2000 US dollars	234.63	334.97	452.99	951.61	7.4	6.2	5.1
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	0.12	0.12	0.12	0.13	0.5	0.1	0.6
Mining	0.03	0.02	0.03	0.03	-4.9	3.0	0.5
Manufacturing	9.20	7.28	7.55	7.71	-4.6	0.7	0.1
Utilities	4.99	5.61	6.90	10.28	2.4	4.2	2.7
Construction	8.22	7.31	9.01	13.74	-2.3	4.3	2.9
Wholesale & Retail Trade	41.66	49.33	62.89	100.31	3.4	5.0	3.2
Transport & Communication	16.13	22.17	28.40	47.32	6.6	5.1	3.5
FIRE	37.35	42.38	52.43	80.25	2.6	4.3	2.9
Other Services	52.33	58.84	70.91	111.66	2.4	3.8	3.1
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	59.0	59.1	59.3	59.7	0.1	0.2	0.4
Government consumption share of GDP	9.3	9.5	8.0	5.1	0.2	-1.5	-2.9
Fixed investment share of GDP	27.0	23.8	25.3	27.9	-3.2	1.5	2.6
Exports share of GDP	145.5	198.4	217.8	256.7	52.9	19.4	38.9
Imports share of GDP	141.9	191.5	211.3	250.5	49.6	19.8	39.2
Net exports share of GDP	3.6	6.9	6.5	6.2	3.3	-0.4	-0.3

## Taiwan

In the worst case scenario, Taiwan's real GDP growth is expected to slow to an average of 3.3% in the whole forecast period, compared with an average of 3.7% in the baseline forecast. The more pessimistic results in the worst case scenario are the products of several assumptions made in this case. Firstly, the cross-strait relations and domestic political condition would be eroded overtime, in particular with the pro-independent groups gaining more political power. Taiwan would suffer not only from the loss of foreign direct investment but also from the disadvantage when it becomes a trade outcast following China's more aggressive role in the region.



In addition, the potential of over-investment in the high-tech sector (that has shown signs of emerging in the second half of 2004) would also lead to the decrease in productivity. Not to mention, the government's inattentive policies would be the obstacles towards economic progress, such as dramatically reducing the research funding for technology innovations. This would lead to a slowdown in technology progress, while the island's high-tech sector could slowly lose its competitive edge.

Fixed investment growth is expected to slow in the worst case scenario compared with the baseline, as business confidence is undermined by the aforementioned negative economic environment. In addition, discouraged by a slowdown in technology advancement, companies would reduce investment on equipment and software, as well as other capital expenditure. In the worst case scenario, real fixed investment is projected to expand by 6.1% in 2005-2010 and 5.1% in 2011-25. For the whole forecast period, real fixed investment would grow by 5.4%, slower than 5.9% projected in the baseline.

Consumers are also expected to cut down spending in the worst case scenario, held back by a discouraging atmosphere underlined in the above assumptions. Consumer spending is expected to grow by 3.3% in 2005-25, lower than an average of 3.6% in the baseline. In addition, the government's fiscal balance would be eroded and government consumption would decrease. With government fiscal balance expected to be in the deficit for the whole forecast period as a result of weaker revenue, government consumption is expected to grow by 0.4% in 2005-25, compared with the baseline's 0.7%.

Inflation would rise further in the worst case, as higher costs are implied by falling productivity and reduced efficiency, as well as higher oil prices. Although the rise in interest rates and slower domestic demand would restrain some of the upward pressure, we believe that they would not be enough to fully reduce the cost-push pressure. As a result, consumer price inflation would increase to an average of 2.8% for the whole forecast period, up from 2.3% projected in the baseline.

With the more pessimistic assumptions also applied to all other economies in the world, a gloomier global economic prospect is expected as a result. This, coupled with the high-tech sector's losing its competitive edge and market shares in the foreign market, would lead to a slowdown in Taiwan's exports, which are projected to grow 3.5% in 2005-2025, down from the baseline's 4.5%. Meanwhile, reflecting on weaker domestic demand, imports would also slow; rising 3.9% in the worst case, down from the baseline's 5%.

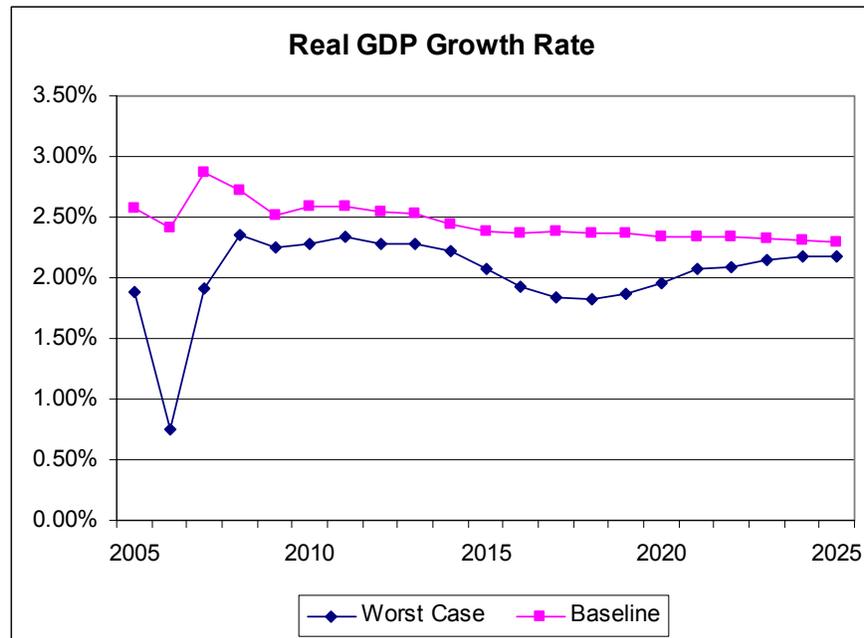
## TAIWAN

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	307.84	345.00	507.27	1,315.00	2.3	8.0	6.6
Nominal GDP per capita, US dollars	13,913	15,227	21,852	53,415	1.8	7.5	6.1
Real GDP, billion real 2000 US dollars	307.84	354.14	427.82	691.11	2.8	3.9	3.2
Real GDP per capita, real 2000 US dollars	13,913	15,631	18,429	28,073	2.4	3.3	2.8
Real private consumption, billion real 2000 US dollars	190.72	208.02	243.79	401.85	1.8	3.2	3.4
Real government consumption, billion real 2000 US dollars	39.76	40.23	41.22	44.50	0.2	0.5	0.5
Real fixed investment, billion real 2000 US dollars	72.26	66.25	89.19	191.04	-1.7	6.1	5.2
Real exports, billion real 2000 US dollars	168.34	233.48	305.70	472.74	6.8	5.5	2.9
Real imports, billion real 2000 US dollars	161.31	193.76	253.36	424.51	3.7	5.5	3.5
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	6.46	5.93	5.48	6.08	-1.7	-1.6	0.7
Mining	1.29	1.31	1.26	1.01	0.2	-0.7	-1.4
Manufacturing	81.68	108.21	145.44	233.70	5.8	6.1	3.2
Utilities	6.67	7.80	9.91	15.23	3.2	4.9	2.9
Construction	10.55	7.52	8.30	10.76	-6.6	2.0	1.7
Wholesale & Retail Trade	60.84	67.49	79.19	129.62	2.1	3.2	3.3
Transport & Communication	20.77	25.91	30.97	51.08	4.5	3.6	3.4
FIRE	70.44	81.80	93.67	142.26	3.0	2.7	2.8
Other Services	62.93	72.48	81.56	125.33	2.9	2.4	2.9
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	62.0	62.1	60.2	59.1	0.2	-2.0	-1.1
Government consumption share of GDP	12.9	12.0	10.1	6.0	-0.9	-1.9	-4.0
Fixed investment share of GDP	23.5	20.6	23.6	32.5	-2.9	3.0	8.9
Exports share of GDP	54.7	67.4	71.4	65.1	12.7	3.9	-6.3
Imports share of GDP	52.4	62.1	65.6	63.9	9.7	3.5	-1.7
Net exports share of GDP	2.3	5.3	5.7	1.2	3.0	0.4	-4.6

### III. Europe

#### United Kingdom

Real GDP growth in the United Kingdom averages 1.8% per annum over the five-year period 2005-2009 in the worst case scenario, as lower productivity growth, higher interest rates, and stronger oil prices exert a significant toll. Indeed, this represents a reduction of 0.8 percentage points from the 2.6% average expansion rate achieved under the baseline. Consequently U.K. GDP stands at US\$1.17 trillion in 2009 in real (2000 US\$) terms under the worst case scenario, compared to US\$1.21 trillion under the baseline.



The UK suffers less than some of the other European countries due to the fact that it is still a modest net oil exporter at this stage. Real private fixed investment is particularly hard hit by higher interest rates, reduced productivity growth and higher oil prices that significantly squeeze margins, as well as the hit to business confidence. It increases at an annual average rate of 0.8%, less than one-third the 3.1% rate achieved in the baseline.

Meanwhile, average annual growth in real private consumption between 2005 and 2009 is reduced to 1.9% from 2.6%, largely reflecting weaker employment and reduced income growth. In real terms, private consumption is reduced to US\$792 billion in 2009 under the worst case scenario from US\$817 billion in the baseline. Finally, average annual government spending growth in real terms falls to 2.0% in the worst case scenario

from 2.8% in the baseline, as public finances come under significant pressure from weaker growth.

The U.K trade sector will be hit, as exports are pressurized by the weaker global growth resulting from reduced productivity growth, higher interest rates, and stronger oil prices. In addition, imports are dampened by softer UK domestic demand. In real terms, U.K. annual average export growth amounts to 4.5% in the worst case scenario compared to 4.8% in the baseline. As a result, U.K. exports are reduced to US\$350 billion in 2009 from US\$355 billion. Meanwhile, annual average import growth is cut to 3.9% from 4.8%. Consequently, U.K imports amount to US\$383 billion in real terms in 2009 under the worst case scenario, compared to US\$420 billion under the baseline.

Over the whole forecast period 2005-25, GDP growth averages 2.0% per annum under the worst case scenario, compared to 2.4% under the baseline. Consequently, by the year 2025, GDP is 8.4% lower at US\$1.62 trillion in real terms under the worst case scenario, than it is under the baseline. Consumer spending expands at a reduced real annual average rate of 2.1% under the worst case scenario during the 21-year period, compared to 2.5% under the baseline. As a result, it is 7.5% lower at US\$1.11 trillion by 2025. Nevertheless, consumer spending's share of GDP is higher at 60.7% in 2025 under the worst case scenario than it is under either the baseline (59.9%) or the best case scenario (58.6%). This is because the other sectors take even more of a relative hit, from higher interest rates, reduced productivity, and stronger oil prices.

Indeed,, the real annual average increase in private fixed investment is reduced to 2.3% from 3.0%. This means that it is 13.2% lower in real terms by 2025 at US\$261 million. As a result, fixed investment's share of GDP in 2025 is just 20.6% under the worst case scenario, compared to 21.7% under the baseline and 23.3% under the best case. Meanwhile, annual average real growth in public consumption is cut to 2.2% from 2.6%.

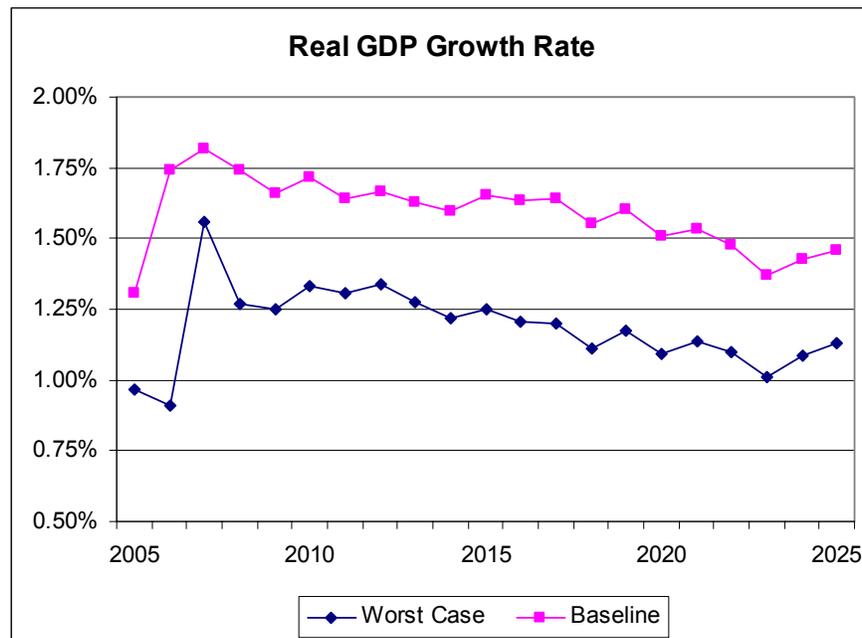
The trade sector is significantly softer, with real exports reduced by 6.0% at US\$742 million in 2025, and imports down by 6.8% at US\$869 million. In real terms, export growth is projected to average 4.7% a year over the period under the worst case scenario compared with 5.1% under the baseline. Average annual import growth is cut from 5.0% to 4.7%. Consequently, the U.K. remains a net importer at the end of the forecast period.

## UNITED KINGDOM

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	1,441.01	2,440.41	2,932.24	5,450.52	11.1	3.7	4.2
Nominal GDP per capita, US dollars	24,279	40,635	47,953	84,291	10.8	3.4	3.8
Real GDP, billion real 2000 US dollars	1,439.22	1,608.16	1,767.41	2,407.75	2.2	1.9	2.1
Real GDP per capita, real 2000 US dollars	24,249	26,777	28,904	37,235	2.0	1.5	1.7
Real private consumption, billion real 2000 US dollars	948.63	1,080.59	1,199.28	1,644.00	2.6	2.1	2.1
Real government consumption, billion real 2000 US dollars	268.12	317.42	349.87	485.82	3.4	2.0	2.2
Real fixed investment, billion real 2000 US dollars	244.11	284.25	297.91	458.16	3.1	0.9	2.9
Real exports, billion real 2000 US dollars	404.17	443.69	560.40	1,132.28	1.9	4.8	4.8
Real imports, billion real 2000 US dollars	433.69	518.52	641.21	1,319.65	3.6	4.3	4.9
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	13.50	13.53	13.60	14.83	0.0	0.1	0.6
Mining	38.22	28.52	28.24	28.28	-5.7	-0.2	0.0
Manufacturing	234.67	237.39	256.32	324.52	0.2	1.5	1.6
Utilities	24.40	26.47	28.88	38.96	1.6	1.8	2.0
Construction	68.85	82.96	87.52	104.39	3.8	1.1	1.2
Wholesale & Retail Trade	199.11	234.07	258.32	354.54	3.3	2.0	2.1
Transport & Communication	106.07	119.91	136.06	207.93	2.5	2.6	2.9
FIRE	360.52	436.91	493.93	714.98	3.9	2.5	2.5
Other Services	287.05	321.89	346.74	443.93	2.3	1.5	1.7
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	65.9	64.3	63.4	60.7	-1.6	-0.9	-2.7
Government consumption share of GDP	18.6	21.5	21.5	22.0	2.9	0.0	0.5
Fixed investment share of GDP	17.0	17.2	17.1	20.6	0.2	-0.1	3.5
Exports share of GDP	28.1	24.8	27.6	38.3	-3.2	2.8	10.7
Imports share of GDP	30.1	27.9	29.8	41.6	-2.2	1.8	11.9
Net exports share of GDP	-2.0	-3.1	-2.1	-3.3	-1.0	1.0	-1.2

## Germany

Real GDP growth in Germany averages 1.2% per annum over the five-year period 2005-2009 in the worst case scenario, as it is significantly dragged down by the unappetizing combination of lower productivity growth, stronger oil prices, and higher interest rates. This represents a reduction of 0.5 percentage point from the 1.7% average expansion rate expected to be achieved under the baseline. Consequently, German real GDP stands at US\$2.025 trillion in 2009 under the worst case scenario, compared to US\$2.073 trillion under the baseline.



Germany suffers markedly more than some of the other European countries due to the fact that it is still a large oil importer at this stage. Real private fixed investment is particularly hard hit as business confidence and margins are pressurized by the higher oil prices and interest rates, as well as by lower productivity growth. Consequently, it increases at an annual average rate of 1.8% over 2005–09, compared to the 2.4% presented in the baseline.

Meanwhile, average annual growth in real private consumption between 2005 and 2009 is reduced to 1.2% from 1.7%, largely reflecting weaker employment growth and smaller real income gains. In real terms, private consumption is reduced to US\$1.174 trillion in 2009 under the worst case scenario from US\$1.201 trillion in the baseline. Finally, average annual government spending growth in real terms falls to 0.3% in the worst case scenario from 0.8% in the baseline, as already weak public finances come under additional pressure from slower growth.

The German trade sector will be hit, as exports are pressurized by the weaker global growth under the worst case scenario and imports are dampened by softer domestic demand. In real terms, annual average export growth in Germany amounts to 4.3% in the worst case scenario compared to 4.7% in the baseline. As a result, real German exports are reduced to US\$949 billion in 2009 from US\$965 billion. Meanwhile, annual average import growth is cut to 4.7% from 5.1%. Consequently, German imports amount to US\$871 billion in 2009 under the worst case scenario, compared to US\$887.0 billion under the baseline.

Over the whole forecast period 2005-25, real GDP growth averages 1.2% per annum under the worst case scenario, compared to 1.6% under the baseline. Consequently, by the year 2025, GDP is 8.0% lower at US\$2.45 trillion in real terms under the worst case scenario, than it is under the baseline. Consumer spending expands at a reduced real annual average rate of 1.3% under the best case scenario during the 21-year period, compared to 1.6% under the baseline. As a result, in real terms it is 7.2% lower at US\$1.44 trillion by 2025. Even so, consumer spending's share of total GDP rises to 62.5% of total GDP in 2025 under the worst case scenario compared to 62.2% under the baseline and 62.0% under the best case. This is because it is affected to a lesser extent than some of the other sectors by lower productivity growth, higher interest rates, and stronger oil prices.

Meanwhile, the real annual average increase in fixed investment is reduced to 1.4% under the worst case scenario from 1.8% in the baseline. This means that it is 8.1% lower in real terms by 2025 at US\$472 billion. Consequently, fixed investment's share of total GDP in 2025 is modestly lower under the worst case scenario (at 17.9%) than it is under the baseline (18.0%) or the best case (18.1%). Meanwhile, annual average real growth in public consumption is squeezed to 0.8% from 1.2%.

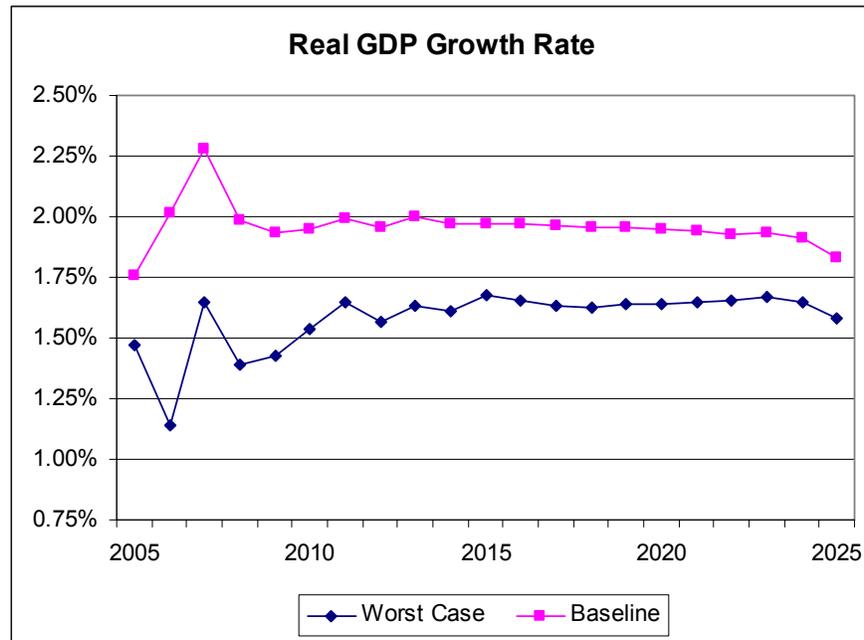
The trade sector is significantly softer, with real exports reduced by 7.1% at US\$1.762 trillion in 2025, and imports down by 6.4% at US\$1.695 trillion. In real terms, export growth is projected to average 4.0% a year over the period under the worst case scenario compared with 4.4% under the baseline. Average annual import growth is cut from 4.7% to 4.4%. Consequently, Germany remains a net exporter at the end of the forecast period.

## GERMANY

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	1,872.92	3,066.15	3,584.17	5,005.63	10.4	3.2	2.3
Nominal GDP per capita, US dollars	22,788	37,142	43,314	61,133	10.3	3.1	2.3
Real GDP, billion real 2000 US dollars	1,869.29	1,927.51	2,052.33	2,445.76	0.6	1.3	1.2
Real GDP per capita, real 2000 US dollars	22,744	23,349	24,802	29,870	0.5	1.2	1.2
Real private consumption, billion real 2000 US dollars	1,102.69	1,114.64	1,190.08	1,440.03	0.2	1.3	1.3
Real government consumption, billion real 2000 US dollars	355.46	366.62	376.39	434.07	0.6	0.5	1.0
Real fixed investment, billion real 2000 US dollars	404.76	356.50	388.53	471.79	-2.5	1.7	1.3
Real exports, billion real 2000 US dollars	630.73	807.20	986.89	1,761.69	5.1	4.1	3.9
Real imports, billion real 2000 US dollars	623.12	724.45	908.30	1,695.27	3.1	4.6	4.2
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	20.77	21.09	22.53	26.02	0.3	1.3	1.0
Mining	4.84	4.37	4.27	4.22	-2.0	-0.4	-0.1
Manufacturing	390.24	420.92	452.53	543.79	1.5	1.5	1.2
Utilities	31.77	32.81	35.76	44.30	0.6	1.7	1.4
Construction	89.88	73.77	74.91	80.59	-3.9	0.3	0.5
Wholesale & Retail Trade	204.61	210.41	226.82	285.91	0.6	1.5	1.6
Transport & Communication	102.61	126.89	141.88	197.87	4.3	2.3	2.2
FIRE	517.99	564.47	614.59	782.86	1.7	1.7	1.6
Other Services	374.28	386.08	412.18	505.69	0.6	1.3	1.4
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	59.0	58.4	58.9	62.5	-0.5	0.4	3.6
Government consumption share of GDP	19.0	18.6	18.0	18.2	-0.5	-0.6	0.2
Fixed investment share of GDP	21.7	17.4	17.7	17.9	-4.3	0.3	0.2
Exports share of GDP	33.7	39.6	44.4	67.7	5.9	4.8	23.3
Imports share of GDP	33.3	34.5	39.6	66.4	1.2	5.1	26.8
Net exports share of GDP	0.4	5.1	4.8	1.3	4.7	-0.3	-3.6

## France

Average annual real French GDP growth is reduced to a very modest 1.4% over the five year period 2005-2009 in the worst case scenario, as economic activity takes a serious hit from reduced productivity growth, higher interest rates, and stronger oil prices. This is 0.6 percentage point lower than in the baseline forecast, and means that real GDP (measured in 2000 US\$) stands at US\$1.54 trillion in 2009 under the worst case compared to US\$1.59 trillion in the baseline.



Real private consumption takes a significant hit during 2005-2009, as it is depressed by the higher interest rates, lower wage growth and higher unemployment. Its average annual real growth rate is cut to 1.4% from 2.0%, causing it to stand at US\$842 billion in real terms in 2009 compared to US\$868 billion under the baseline.

Real private fixed investment suffers even more. It is also dampened by higher interest rates, and it is further adversely affected by the squeeze on businesses' margins resulting from weaker productivity growth and higher oil prices. Thus, it rises by a significantly more limited 2.4% a year under the worst case scenario to stand at US\$270 billion in real terms in 2009. In contrast, it increases at an annual average rate of 3.5% in the baseline, to stand at US\$285 billion in 2009. Meanwhile, real annual average growth in public spending growth eases back to 1.4% in the worst case from 1.8% in the baseline, reflecting the increased pressure on public finances from softer growth.

Stronger oil prices, higher interest rates, and lower productivity growth will also lead to reduced global growth under the worst case scenario, and this will obviously exact some

toll on French exports. Specifically, annual real export growth is limited to 3.9%, down from 4.2% in the baseline. This causes exports to amount to US\$497 billion in 2009, compared to US\$504 billion in the baseline. Similarly, imports are depressed by the softer French domestic demand under the worst case scenario. They grow at a reduced annual average rate of 4.3% over the five years to stand at US\$519 billion in real terms in 2009. In contrast, they rise at an annual rate of 4.9% in the baseline to reach US\$534 in 2009.

Over the full 21 year forecast period 2005-25, annual average real French GDP growth is reduced to 1.6% under the worst case from 2.0% in the baseline. Thus, real GDP stands 7.6% lower by 2025 at US\$2.00 trillion. Real private fixed investment takes a particularly serious hit, with its average annual growth rate reduced to 3.0% in the worst case from 3.5% in the baseline. As a result, private real private fixed investment amounts to US\$450 billion in 2005 under the worst case. This is down 8.8% from US\$494 in the baseline. Furthermore, fixed investment's share of GDP in 2025 is limited to 24.5% under the worst case scenario, compared to 24.8% under the baseline and 25.2% under the best case.

Meanwhile, average annual real consumer spending growth moderates to 1.5% in the worst case scenario from 1.8% in the baseline. Consequently, it rises to US\$1.08 trillion in 2025, which is 6.8% less than the US\$1.15 trillion level it reaches in the baseline. Nevertheless, private's consumption share of total GDP in 2025 is actually higher under the worst case scenario (52.1%) than it is under the baseline (51.6%) or the best case (51.0%), as it suffers to a lesser extent than investment from these worsened conditions. Meanwhile, the reduction in annual average real growth in public spending is 0.4 percentage point, from 2.0% in the baseline to 1.6% in the worst case scenario.

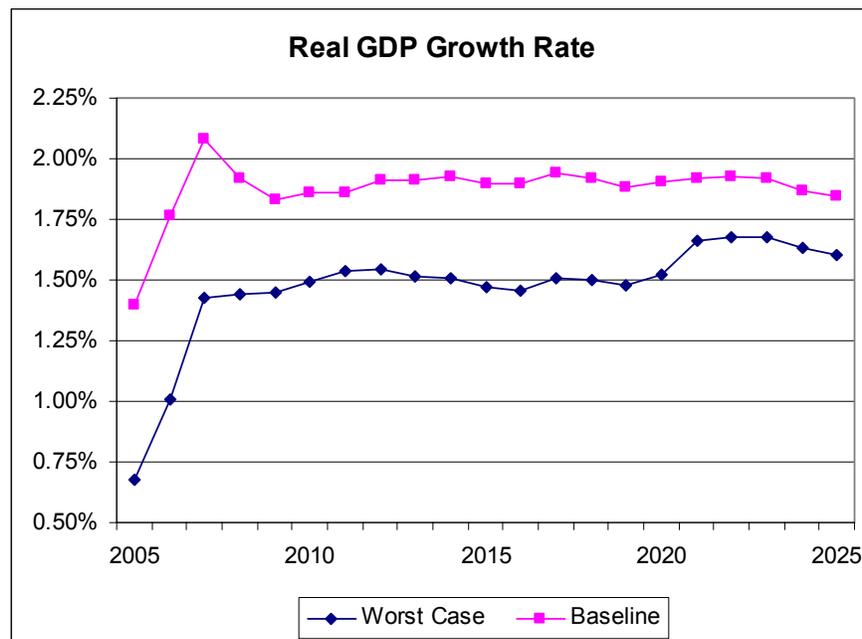
Annual average real growth in French exports during 2005-2025 is limited to 3.9% in the worst case scenario, causing exports to reach US\$915 billion in real terms in 2025. In the baseline, exports grow at an annual average rate of 4.3% to total US\$985 billion in 2025. Annual average import growth is also reduced by 0.4 percentage point over the full forecast period in the worst case scenario, to 4.5% from 4.9%. This means that real imports amount to US\$1.06 trillion in 2025 in the worst case scenario, 6.9% less than the US\$1.14 trillion that they reach in the baseline. French imports are US\$146 billion higher than exports in real terms in 2025 under the worst case scenario. In the baseline, the difference is US\$1.55 billion.

## FRANCE

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	1,311.87	2,331.17	2,757.46	4,606.29	12.2	3.4	3.5
Nominal GDP per capita, US dollars	22,265	38,650	45,041	73,369	11.7	3.1	3.3
Real GDP, billion real 2000 US dollars	1,309.75	1,408.65	1,512.20	1,928.63	1.5	1.4	1.6
Real GDP per capita, real 2000 US dollars	22,229	23,355	24,700	30,719	1.0	1.1	1.5
Real private consumption, billion real 2000 US dollars	705.08	772.52	830.19	1,043.51	1.8	1.5	1.5
Real government consumption, billion real 2000 US dollars	304.24	349.68	375.09	482.10	2.8	1.4	1.7
Real fixed investment, billion real 2000 US dollars	264.62	282.00	312.28	490.67	1.3	2.1	3.1
Real exports, billion real 2000 US dollars	374.09	403.12	491.26	869.56	1.5	4.0	3.9
Real imports, billion real 2000 US dollars	356.87	421.75	523.06	1,023.13	3.4	4.4	4.6
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	32.74	33.67	34.11	35.82	0.6	0.3	0.3
Mining	2.37	2.44	2.44	2.43	0.6	0.0	0.0
Manufacturing	215.94	233.34	251.93	319.21	1.6	1.5	1.6
Utilities	23.64	25.17	27.45	36.23	1.3	1.8	1.9
Construction	55.90	65.65	69.55	81.78	3.3	1.2	1.1
Wholesale & Retail Trade	153.86	160.37	173.76	229.03	0.8	1.6	1.9
Transport & Communication	75.74	86.25	96.95	141.85	2.6	2.4	2.6
FIRE	365.18	400.06	440.01	587.85	1.8	1.9	1.9
Other Services	277.67	314.16	339.28	439.38	2.5	1.6	1.7
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	53.8	54.2	54.0	52.1	0.3	-0.2	-1.9
Government consumption share of GDP	23.2	24.1	23.7	22.4	0.9	-0.4	-1.3
Fixed investment share of GDP	20.2	19.8	20.5	24.5	-0.4	0.7	4.0
Exports share of GDP	28.5	26.4	29.8	41.1	-2.2	3.5	11.3
Imports share of GDP	27.2	26.1	29.6	42.2	-1.1	3.5	12.6
Net exports share of GDP	1.3	0.2	0.2	-1.1	-1.1	0.0	-1.4

## Italy

Real GDP growth in Italy averages 1.2% per annum over the five-year period 2005-2009 in the worst case scenario, as economic activity takes a serious hit from reduced productivity growth, intense competition from producers from the Far-East and Eastern Europe, higher interest rates and stronger oil prices. This represents a reduction of 0.6 percentage points from the 1.8% average expansion rate achieved under the baseline. Consequently, Italian real GDP stands at US\$1.18 trillion in 2009 under the worst case scenario, compared to US\$1.22 trillion under the baseline.



Italy suffers markedly more than some of the other European countries due to the fact that it is still a large oil importer at this stage. Real private fixed investment is particularly hard hit by higher interest rates, squeezed profit margins, lower productivity growth, in conjunction with persistently weak business confidence. It increases at an annual average rate of 0.7%, less than one-third of the 2.1% rate achieved in the baseline.

Meanwhile, average annual growth in real private consumption between 2005 and 2009 is reduced to 1.3% from 1.8%, largely reflecting weaker employment creation, higher interest rates, and lower real income gains. In real terms, private consumption is reduced to US\$713 billion in 2009 under the worst case scenario from US\$732 billion in the baseline. Finally, average annual government spending growth in real terms falls to 0.7% in the worst case scenario from 1.3% in the baseline, as already weak public finances come under significant pressure from slower growth.

Stronger oil prices, higher interest rates, and lower productivity growth will also lead to reduced global growth under the worst case scenario, and this will obviously exact some

toll on Italian exports, already suffering from growing competition from low-cost producers from the Far East and Eastern Europe. Meanwhile, imports are dampened by softer domestic demand. In real terms, annual average export growth in Italy amounts to 2.9% in the worst case scenario compared to 3.6% in the baseline. As a result, real Italian exports are reduced to US\$344.9 billion in 2009 from US\$366.5 billion. Meanwhile, annual average import growth is cut to 2.8% from 3.5%. Consequently, Italian imports amount to US\$344.6 billion in 2009 under the worst case scenario, compared to US\$355.3 billion under the baseline.

Over the whole forecast period 2005-25, GDP growth averages 1.5% per annum under the worst case scenario, compared to 1.9% under the baseline. Consequently, by the year 2025, GDP is 8.1% lower at US\$1.51 trillion in real terms under the worst case scenario, than it is under the baseline. Domestic demand is the main engine of growth, compensating for a diminishing contribution from net exports.

Consumer spending expands at a reduced real annual average rate of 1.5% under the best case scenario during the 21-year period, compared to 1.9% under the baseline. As a result, in real terms is 7.8% lower at US\$913.4 billion by 2025.

Furthermore, the real annual average increase in private fixed investment is reduced to 1.8% from 2.2%. This means that it is 8.1% lower in real terms by 2025 at US\$321.7 billion. Meanwhile, annual average real growth in public consumption is squeezed to 1.2% from 1.6%.

The trade sector is significantly softer, with real exports reduced by 8.0% at US\$0.573.5 billion in 2025, and imports down by 7.4% at US\$587 billion. In real terms, export growth is projected to average 3.2% a year over the period under the worst case scenario compared with 3.6% under the baseline. Average annual import growth is cut from 3.6% to 3.2%. Consequently, Italy is no longer a net exporter at the end of the forecast period.

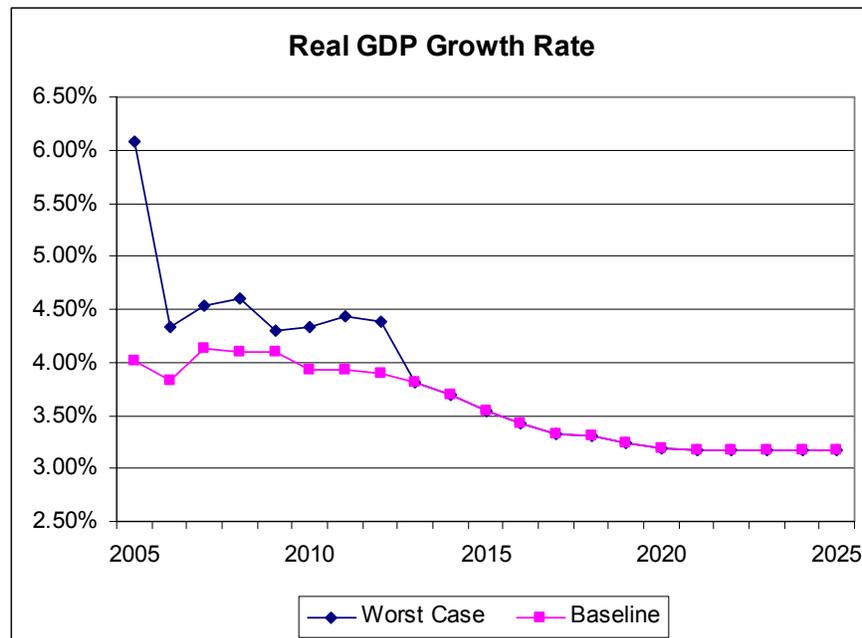
## ITALY

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	1,077.29	1,940.78	2,371.34	3,994.82	12.5	4.1	3.5
Nominal GDP per capita, US dollars	18,742	33,663	40,864	67,814	12.4	4.0	3.4
Real GDP, billion real 2000 US dollars	1,075.49	1,122.46	1,201.09	1,513.24	0.9	1.4	1.6
Real GDP per capita, real 2000 US dollars	18,711	19,469	20,698	25,688	0.8	1.2	1.5
Real private consumption, billion real 2000 US dollars	645.83	673.76	723.84	913.44	0.9	1.4	1.6
Real government consumption, billion real 2000 US dollars	201.35	216.42	229.25	279.41	1.5	1.2	1.3
Real fixed investment, billion real 2000 US dollars	213.18	222.77	240.16	321.72	0.9	1.5	2.0
Real exports, billion real 2000 US dollars	303.95	305.32	355.94	573.54	0.1	3.1	3.2
Real imports, billion real 2000 US dollars	293.45	303.01	355.20	586.34	0.6	3.2	3.4
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	27.51	26.44	27.51	30.65	-0.8	0.8	0.7
Mining	5.23	5.89	5.92	6.44	2.4	0.1	0.6
Manufacturing	203.25	206.57	226.12	290.02	0.3	1.8	1.7
Utilities	21.58	24.55	27.01	35.25	2.6	1.9	1.8
Construction	47.88	53.82	56.31	63.14	2.4	0.9	0.8
Wholesale & Retail Trade	165.91	169.03	185.10	244.86	0.4	1.8	1.9
Transport & Communication	73.58	81.50	90.81	125.94	2.1	2.2	2.2
FIRE	259.43	290.43	318.77	427.57	2.3	1.9	2.0
Other Services	192.63	204.22	218.46	262.95	1.2	1.4	1.2
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	60.0	59.5	59.2	58.1	-0.6	-0.3	-1.1
Government consumption share of GDP	18.7	19.5	19.2	18.8	0.8	-0.3	-0.4
Fixed investment share of GDP	19.8	19.6	19.8	22.2	-0.2	0.2	2.3
Exports share of GDP	28.2	27.0	28.6	34.4	-1.3	1.6	5.8
Imports share of GDP	27.2	26.0	27.1	33.6	-1.3	1.2	6.4
Net exports share of GDP	1.0	1.0	1.5	0.8	0.0	0.5	-0.7

## IV. South America

### Venezuela

We have defined the worst case scenario as one in which oil prices increased by \$10 per barrel, international interest rates rise by one percentage point and productivity growth decelerates. The impact of such shocks in any non-oil economy would be evidently negative in terms of GDP growth but not necessarily in the case of a net oil exporter country. Such is the case of Venezuela, which economy depends to a great extent on the oil sector and the fiscal proceeds the government obtains from it.



Indeed, Venezuela oil exports represented over 80% of total exports in 2004 while fiscal proceeds (tax and non-tax) made over 50% of total government revenues. Furthermore, the oil sector alone represents about 20% of the overall economy (in terms of GDP) and has an important multiplier effect over the remaining 80%. Given these characteristics, our “worst” case scenario really becomes best case scenario for Venezuela.

A sustained increase (\$10) in the price of oil would give the Venezuelan economy a definitive boost in the first few years after the shock (2005-2011). A sustained increase in oil prices has several positive effects over the Venezuelan economy. First, higher oil prices allow the public sector to boost its spending which in turn has a significant impact in overall domestic consumption. The government’s typical response to higher oil prices comes in the form of increased social spending and expanded payroll. These responses has a direct impact in average disposable income and therefore in domestic consumption.

Secondly, higher oil prices improve the country's external position, which in turns allows the government to keep a strong currency and lower inflation. These factors also translate into higher domestic consumption. Thirdly, higher oil prices allow the government to boost spending in public infrastructure and the state-owned oil company (PDVSA) to also increase its investment expenditures. Finally, the country could use some of the oil windfall to increase its oil output capacity, which would accelerate GDP growth rate in the medium term. This last effect is not always certain as it depends on the government's overall oil policy—e.g. the government may want to keep oil output low in order to boost prices even more.

Thus, under the worst case scenario real GDP growth in Venezuela actually accelerates during the 2005-2012 period. The bigger impact is on 2005 (year of the shock) as domestic demand responds to the oil windfall. During this year real GDP growth accelerates to 6.1% or 2.1 percentage points over the base scenario. Real exports increase only marginally as non-oil exports lose some competitiveness due to a strong currency. On the other hand, real imports growth accelerates significantly (4.82 percentage points over the base scenario) as demand rises and the real exchange rate remains overvalued. Such increase in real imports somehow reduces the overall positive impact of higher oil prices on total GDP. The impact of the 2005 oil shock starts diluting in 2006 and by 2012 disappears (keeping everything else constant).

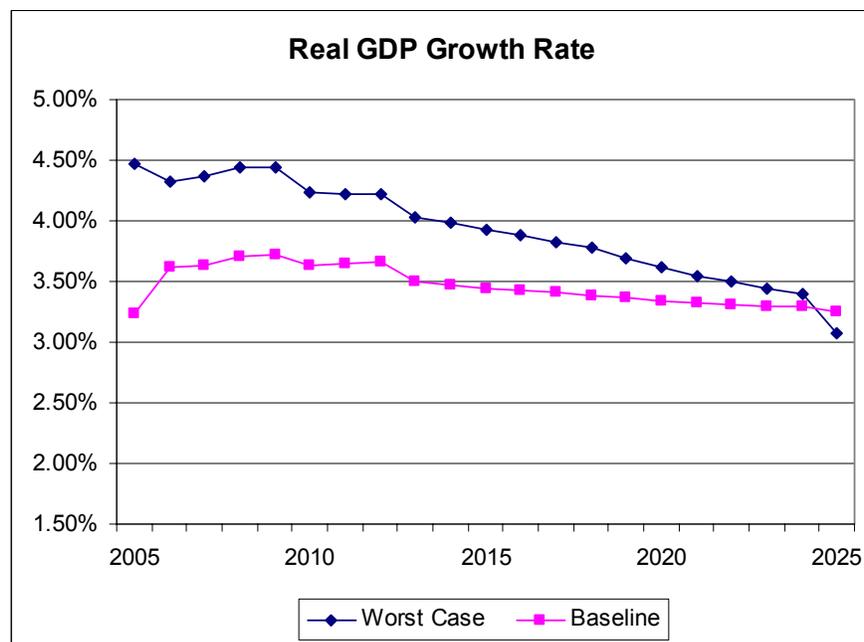
The overall impact of this scenario on real GDP is around +5% by 2025. While higher oil prices have a definite positive impact on Venezuela, our other assumptions for this scenario (higher international interest rates and lower productivity) have not. Thus, in the case of Venezuela our assumptions have an opposite impact on GDP growth. Yet, the net effect still remains positive in terms of GDP growth as the oil factor predominates. In the absence of higher interest rates and lower productivity, the impact of a sustained \$10 increase in oil prices would yield a higher increase in GDP by 2025 (around 12%).

## VENEZUELA

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	121.25	120.14	133.46	216.99	-0.2	2.1	3.3
Nominal GDP per capita, US dollars	5,016	4,543	4,712	6,614	-2.0	0.7	2.3
Real GDP, billion real 2000 US dollars	121.25	127.19	157.89	263.70	1.0	4.4	3.5
Real GDP per capita, real 2000 US dollars	5,016	4,809	5,574	8,038	-0.8	3.0	2.5
Real private consumption, billion real 2000 US dollars	65.31	75.66	93.36	153.69	3.0	4.3	3.4
Real government consumption, billion real 2000 US dollars	12.21	15.17	18.36	26.81	4.4	3.9	2.6
Real fixed investment, billion real 2000 US dollars	16.17	14.65	20.50	43.92	-2.0	7.0	5.2
Real exports, billion real 2000 US dollars	34.49	31.57	40.28	70.58	-1.8	5.0	3.8
Real imports, billion real 2000 US dollars	19.78	17.73	24.34	47.79	-2.2	6.5	4.6
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	4.79	4.57	4.97	6.38	-0.9	1.7	1.7
Mining	23.41	24.95	29.81	51.53	1.3	3.6	3.7
Manufacturing	15.62	17.56	24.01	45.92	2.4	6.5	4.4
Utilities	1.67	1.95	2.37	3.68	3.1	3.9	3.0
Construction	5.65	4.71	5.89	10.73	-3.6	4.6	4.1
Wholesale & Retail Trade	17.19	17.61	21.05	35.79	0.5	3.6	3.6
Transport & Communication	10.18	12.92	16.21	31.16	4.9	4.6	4.5
FIRE	16.18	17.27	22.95	52.54	1.3	5.8	5.7
Other Services	22.58	22.91	27.51	45.09	0.3	3.7	3.3
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	53.9	59.5	59.1	58.3	5.6	-0.4	-0.8
Government consumption share of GDP	10.1	11.9	11.6	10.2	1.9	-0.3	-1.5
Fixed investment share of GDP	13.3	11.5	13.0	16.7	-1.8	1.5	3.7
Exports share of GDP	28.4	32.3	27.8	30.0	3.9	-4.5	2.2
Imports share of GDP	16.3	14.9	14.3	17.0	-1.4	-0.6	2.7
Net exports share of GDP	12.1	17.4	13.5	13.0	5.3	-3.9	-0.5

## Ecuador

Contrary to what we see among oil importers, a \$10 per barrel increase in the price of oil improves public finances of an oil exporting country like Ecuador, generating higher government spending exports, better public debt position, and higher private and public investment in the oil industry and the overall economy. Under this scenario, real GDP growth averages 4.4% per annum over the five-year period 2005-2009, an improvement of 0.8% from the 3.6% average growth suggested under the baseline. This implies that nominal GDP in 2009 reaches US\$47.5 billion in this scenario, compared to US\$45.6 billion under the baseline.



During the last ten years, oil revenues have represented in average 28.1% of total public sector revenues, which explains the boost on public finances after an increase in the oil price. Real government consumption increases by an average of 8.5% during the five-year period, higher than the 4.5% average growth under the baseline. The fiscal balance will clearly show the increase in state revenues, both from Petroecuador's direct oil exports, the state-owned oil company, and from higher royalties paid by the private sector. Although total public expenditures would also increase due to social demands, the result for the budget balance is clearly positive, increasing from a surplus equivalent to 1.7% of nominal GDP in average during the period 2005-2009, to 4.7%. Higher interest rates will not generate additional pressure on domestic and external debt service due to budget surplus and better risk perceptions from the international community, typical for oil exporters in rising-oil price environments.

Higher oil prices, together with positive public sector cash flows, would attract real private investment in the mining industry and the overall economy. It increases at an annual average rate of 7.6%, higher than the 5.6% rate achieved in the baseline for the period the period 2005-2009.

On the other hand, average annual growth in real private consumption during the same period expands from 3.4% to 3.8%. Since the oil industry is mainly a capital-intensive activity, an output expansion will not generate an important shift in labor demand, showing the limited spill-over effect on total employment. However, as government expenditure and private investment increase, a higher level of employment will be reached compared with the baseline scenario. This increase in private consumption, together with an increase in government expenditure, would generate additional pressures in inflation, rising in average from 3.5% in our baseline scenario between 2005 and 2009, to 4.7% under this assumptions.

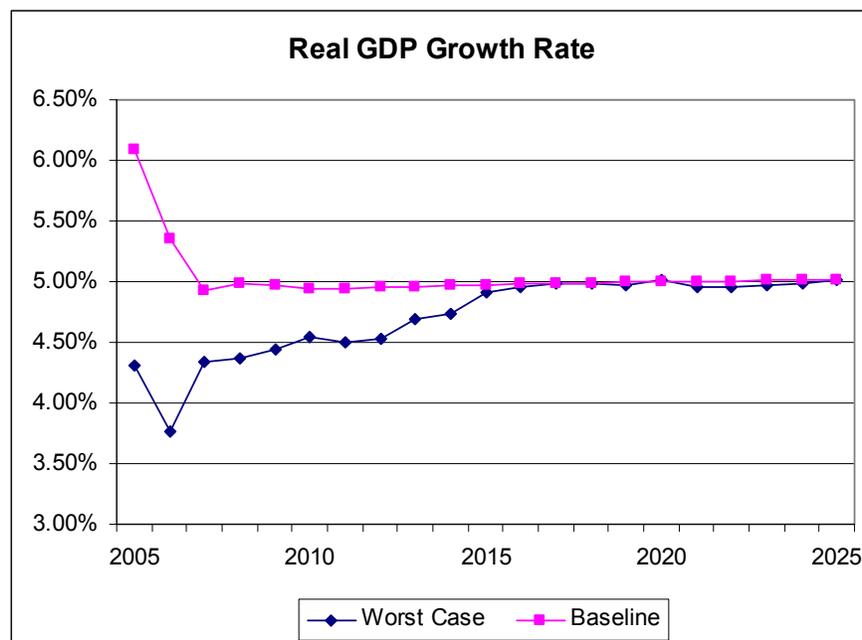
The foreign trade sector shows expansions in its two components. Average annual growth in real total exports, which under the baseline scenario increased at an average annual rate of 1.1% between 2005 and 2009, expand at 2.3% under this alternative. The difference comes from an increase in oil exports, since in both scenarios the non-oil export sector faces difficulties to compete, a negative trend observed during the last ten years. A similar increase is suggested for real imports. In this scenario, they expand between 2005 and 2009 at 1.4% in average, higher than the contraction of -0.8% we foresee in the baseline scenario due to the important increases observed since dollarization was set in place.

## ECUADOR

	Avg. Annual Compound Growth						
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	13.56	33.51	50.96	127.35	19.8	8.7	6.3
Nominal GDP per capita, US dollars	1,070	2,385	3,280	6,137	17.4	6.6	4.3
Real GDP, billion real 2000 US dollars	13.56	19.72	24.42	42.37	7.8	4.4	3.7
Real GDP per capita, real 2000 US dollars	1,070	1,404	1,571	2,042	5.6	2.3	1.8
Real private consumption, billion real 2000 US dollars	8.44	12.62	15.03	23.97	8.4	3.6	3.2
Real government consumption, billion real 2000 US dollars	1.07	1.97	2.68	4.79	12.8	6.4	4.0
Real fixed investment, billion real 2000 US dollars	2.20	4.61	6.57	15.29	15.9	7.4	5.8
Real exports, billion real 2000 US dollars	5.77	7.06	8.33	9.47	4.1	3.4	0.9
Real imports, billion real 2000 US dollars	4.19	7.60	8.16	11.14	12.6	1.5	2.1
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	1.69	2.79	3.23	4.16	10.5	3.0	1.7
Mining	3.43	5.55	6.63	11.27	10.1	3.6	3.6
Manufacturing	0.81	1.85	2.31	4.14	18.0	4.6	4.0
Utilities	0.17	0.35	0.40	0.56	15.7	3.0	2.2
Construction	1.13	1.81	2.17	2.84	9.9	3.8	1.8
Wholesale & Retail Trade	2.68	3.63	4.64	8.01	6.2	5.0	3.7
Transport & Communication	1.72	2.32	3.10	5.92	6.2	5.9	4.4
FIRE	1.31	1.87	2.55	5.17	7.5	6.3	4.8
Other Services	1.77	2.89	3.70	6.19	10.2	5.1	3.5
	Share change, percentage points						
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	63.9	65.2	64.4	65.8	1.3	-0.8	1.5
Government consumption share of GDP	7.9	10.0	11.3	12.8	2.1	1.2	1.5
Fixed investment share of GDP	16.2	21.1	24.7	40.3	4.9	3.5	15.6
Exports share of GDP	42.6	26.2	24.3	22.7	-16.4	-1.9	-1.6
Imports share of GDP	30.9	32.8	31.1	30.8	1.9	-1.7	-0.3
Net exports share of GDP	11.7	-6.6	-6.8	-8.1	-18.3	-0.2	-1.3

## Chile

A negative shock of lower productivity, higher oil prices and higher interest rates coupled with a less favorable international economic environment would slowdown output expansion in Chile, particularly due to lower investment. At Global Insight we estimate a deceleration in growth —during the 2005-2009 period— from 5.3% in the baseline scenario to 4.3% under the worst case assumptions. Expectations of an adverse economic climate and lower profitability would discourage new investment projects and also delay the replacement of relatively old machinery. On average, the rate of growth of gross capital formation would slowdown to 4.1% in 2005-2009, compared to 6.3% in the baseline. Government consumption would not suffer in the first year since the Copper Stabilization Fund has been replenished in 2004 and has the resources to finance public spending even if tax collection decreases as overall economic activity slows down; however, in the following years, prudent fiscal management would lead to change the fiscal budget assumptions on potential GDP growth and long-term copper prices, so expected government revenue should decline and therefore planned expenditure would shrink compared to the baseline.



Higher international oil prices would push domestic prices up only in the first year, overall the consumer price index is expected to increase by 3.5% if bad conditions materialize. Nonetheless, this rate is still within the targeted inflation band and low inflation would return to Chile in 2006. Lower productivity and growth should keep the unemployment rate around 8% in the first two years of the forecast, and then decline in line with moderate output expansion.

Lower world economic growth would reduce demand for Chilean exports, which are estimated to grow on average only 1.5% during the first five years of the shock, down from 5.3% in the baseline. These are not very bad news, after all, given that exports jumped over 50% in 2004; thus, they are expected to continue to increase, albeit at a very slow rate, from a relatively high base. On the other side of the trade account, import expansion would also decelerate as lower investment reduces the amount of purchases of capital goods from abroad and lower output requires less imported raw materials and intermediate goods. Our model predicts that in 2005-2009, nominal US\$ imports would increase at an average rate of 3.2%, well below the rate of expansion under the baseline scenario, which is 8.6%.

Over the whole forecast period 2005-25, GDP growth averages 4.7% per annum under the worst case scenario, compared to 5.0% under the baseline. Consequently, by the year 2025, GDP is 6.5% higher in real terms, than it is under the baseline. It is estimated to amount to US\$228 billion in nominal terms under the worst case scenario. Consumer spending expands at a reduced real annual average rate of 4.8% under the best case scenario during the 21-year period, compared to 5.3% under the baseline. As a result, in real terms is 9.4% lower and would total US\$181 billion by 2025. Furthermore, the real annual average increase in private fixed investment decelerates to 4.5% from 5.4%. This means that it is 16.8% lower in real terms by 2025. In nominal US\$ it would amount to 49 billion. Meanwhile, annual average real growth in public consumption slows down to 4.3% from 5.1%.

## CHILE

	2000	2005	2010	2025	Avg. Annual Compound Growth		
					2000-05	2005-10	2010-25
Nominal GDP, billion US dollars	75.21	88.36	104.35	281.54	3.3	3.4	6.8
Nominal GDP per capita, US dollars	4,944	5,453	6,074	14,193	2.0	2.2	5.8
Real GDP, billion real 2000 US dollars	75.21	90.64	111.84	228.53	3.8	4.3	4.9
Real GDP per capita, real 2000 US dollars	4,944	5,594	6,510	11,520	2.5	3.1	3.9
Real private consumption, billion real 2000 US dollars	48.00	57.95	71.49	147.68	3.8	4.3	5.0
Real government consumption, billion real 2000 US dollars	9.37	10.93	12.96	25.49	3.1	3.5	4.6
Real fixed investment, billion real 2000 US dollars	15.59	19.87	24.08	47.39	5.0	3.9	4.6
Real exports, billion real 2000 US dollars	23.76	33.13	41.36	83.28	6.9	4.5	4.8
Real imports, billion real 2000 US dollars	22.36	31.19	38.02	75.22	6.9	4.0	4.7
<i>Real GDP by sector, billion real 2000 US dollars:</i>							
Agriculture	4.17	4.78	5.37	8.67	2.8	2.3	3.3
Mining	5.33	5.70	5.88	6.98	1.3	0.6	1.1
Manufacturing	12.97	17.15	22.35	53.47	5.8	5.4	6.0
Utilities	2.14	2.58	3.65	10.30	3.9	7.2	7.2
Construction	5.42	5.98	6.89	11.15	2.0	2.9	3.3
Wholesale & Retail Trade	7.77	9.08	11.73	27.48	3.2	5.3	5.8
Transport & Communication	5.35	7.07	9.60	25.51	5.7	6.3	6.7
FIRE	14.49	17.27	23.66	62.59	3.6	6.5	6.7
Other Services	12.73	14.32	18.18	39.32	2.4	4.9	5.3
					Share change, percentage points		
	2000	2005	2010	2025	2000-05	2005-10	2010-25
Private consumption share of GDP	63.8	63.1	63.4	64.4	-0.7	0.2	1.1
Government consumption share of GDP	12.5	12.3	11.8	11.4	-0.2	-0.4	-0.4
Fixed investment share of GDP	20.7	18.9	18.3	17.5	-1.8	-0.6	-0.8
Exports share of GDP	31.6	38.1	39.2	39.4	6.5	1.1	0.2
Imports share of GDP	29.7	32.5	32.8	33.1	2.7	0.3	0.3
Net exports share of GDP	1.9	5.7	6.4	6.3	3.8	0.8	-0.1