

**Paper Reference 9EC0/03
Pearson Edexcel
Level 3 GCE**

**Economics A
Advanced
Paper 3: Microeconomics and Macroeconomics**

Monday 19 June 2017 – Afternoon

Data Book

In the boxes below, write your name, centre number and candidate number.

Surname					
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INSTRUCTIONS

There may be spare copies of some data sheets in case you need them.

**THIS DATA BOOK MUST BE RETURNED WITH THE
QUESTION PAPER AT THE END OF THE EXAMINATION.**

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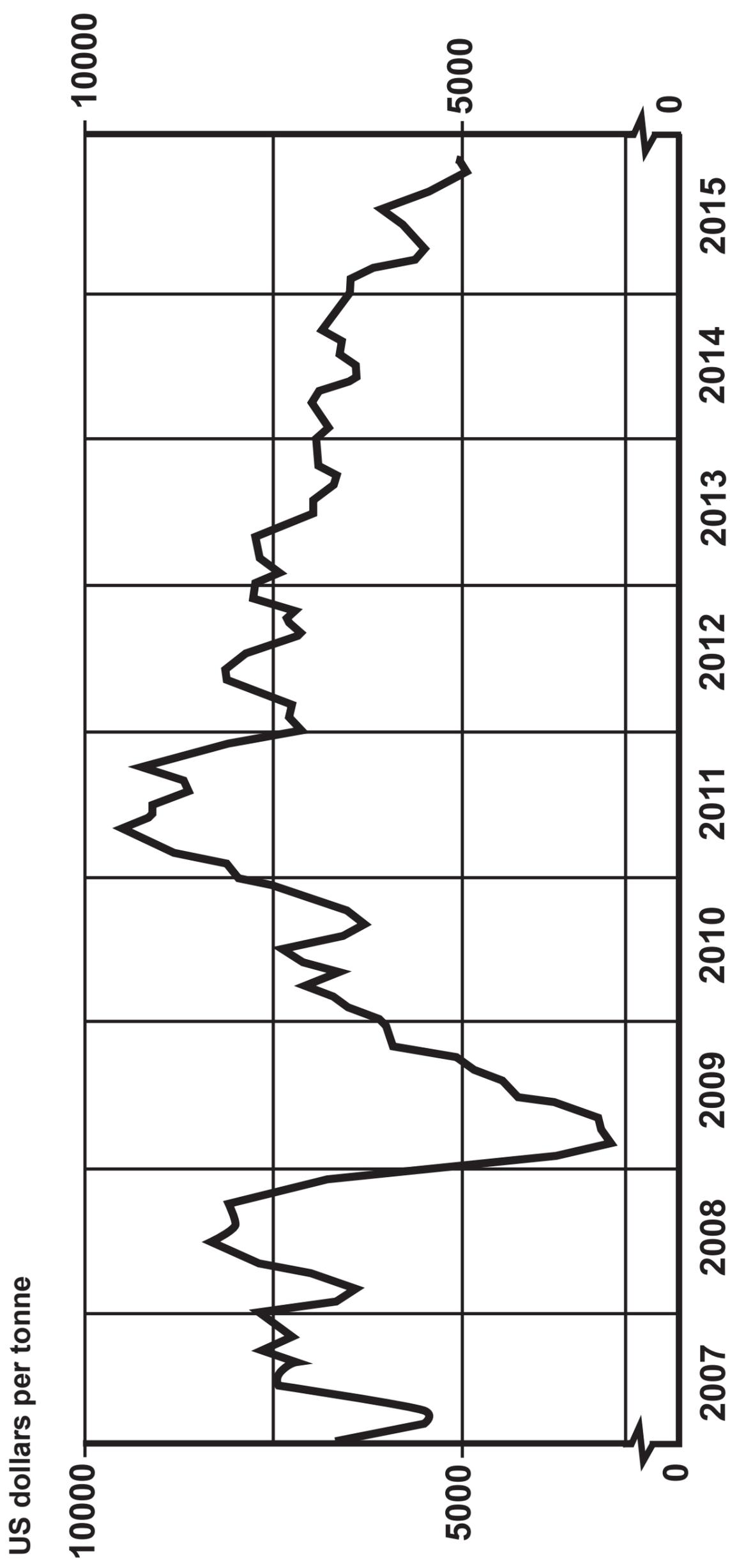
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Question 1

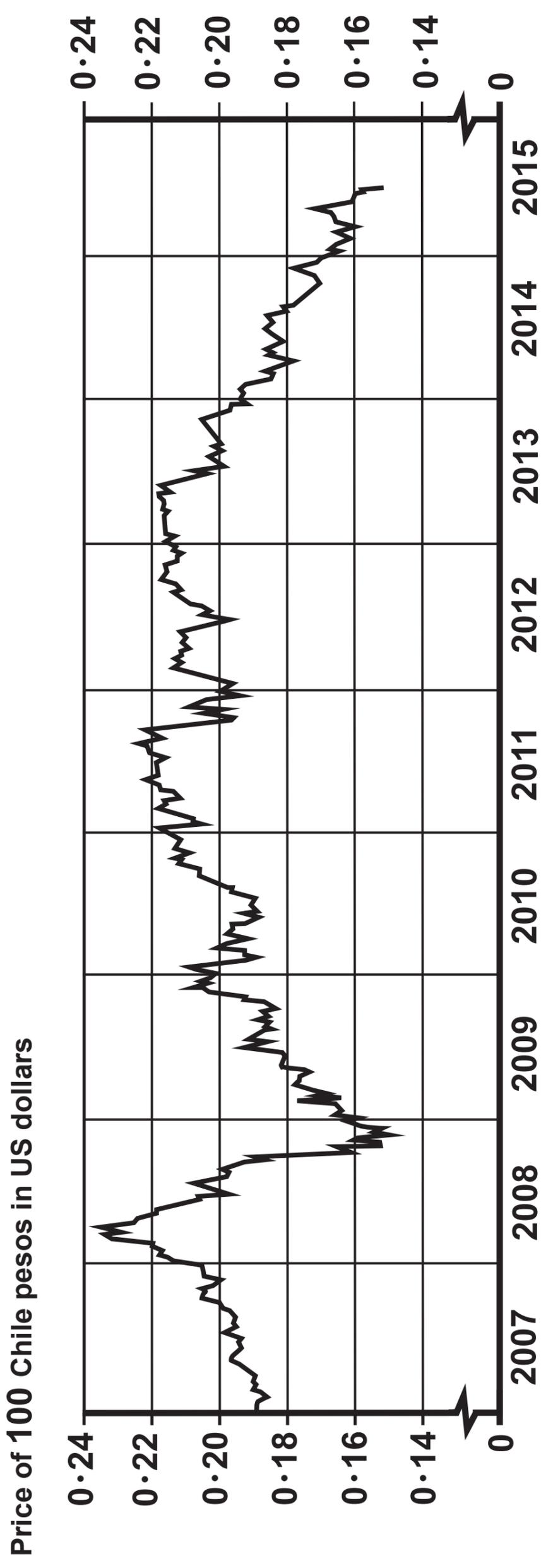
Chile

Figure 1: Copper prices, US dollars per tonne, 2007–2015



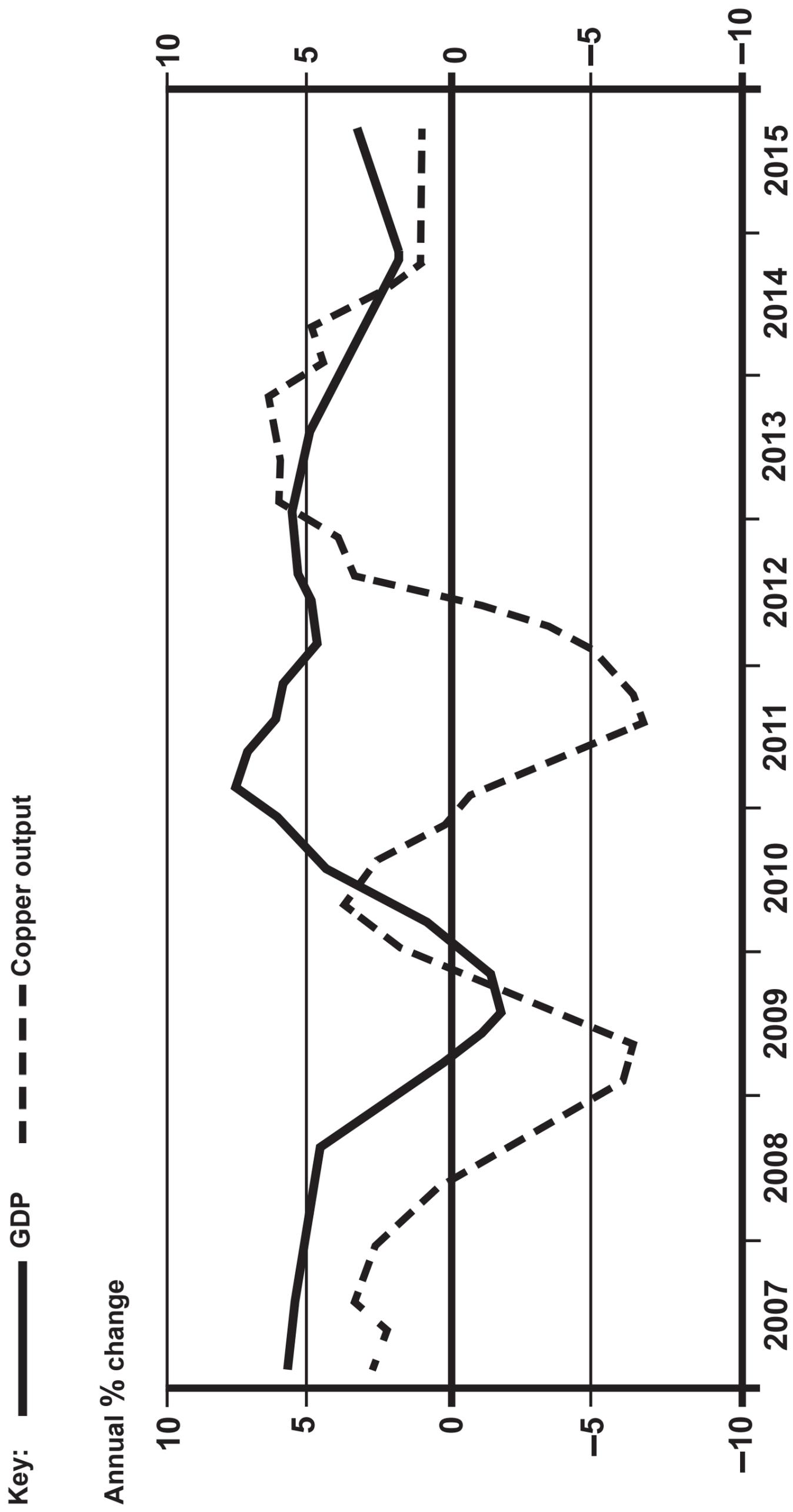
(Source: adapted from <http://www.indexmundi.com/commodities/?commodity=copper&months=120>)

Figure 2: US dollar per 100 Chile pesos exchange rate, 2007–2015



(Source: <https://www.google.co.uk/finance?q=CLPUSD&ei=OGEvVun-AouIU6awjugF>)

Figure 3: Chile: copper output and real GDP growth, 2007–2015



(Source: adapted from FT.com)

Extract A

Chile's economic outlook brightens

Chile has been hit hard by a worldwide fall in commodity prices since 2011. Copper accounts for 20% of Chile's GDP and 60% of its exports; one third of the world's copper is produced by Chile. China purchased 40% of the world's copper, so a slowdown in China combined with increased global over-supply has meant copper prices have collapsed (see Figure 1). Chilean government income from copper exports had reached \$11.5 billion a year before copper prices fell, but now tax revenues from this source have fallen drastically. Growing numbers of copper mines struggle to break even at current prices.

Chile's GDP is now growing, helped by a weak currency that has boosted export industries outside the mining sector, such as its successful wine and salmon industries. There are strengths in tourism and high-tech products. Public services are good in Chile, and poverty rates have been falling fast. On top of this, a large and diversified financial sector with high domestic savings provides a useful safety net, given high levels of corporate debt and the government's need to finance a fiscal deficit of 3% of GDP.

Chile's economy is often regarded as the best run in the region. This is attributed to the credibility of its financial institutions, relatively low levels of national debt (about 15% of GDP) and its free-trade model, which is unrestricted by government interventionism that has distorted the economies of countries such as Argentina and Venezuela. "Chile is an example of how credible institutions can smooth the economic cycle and make adjustments less traumatic," said Mr Valdés, the minister of finance in Chile, pointing to its widely respected and independent central bank and a well-established fiscal rule that give officials the freedom to implement counter-cyclical policies.

However, there are worries that without enough spare capacity in the economy, expansionary fiscal and monetary policies could end up increasing inflation rather than economic growth. Meanwhile monetary policy is restricted by inflation that has reached 5%, well outside the central bank's 2–4% target range, fuelled by a weaker exchange rate. Crucially, investment remains low because of uncertainty over the outcome of the Prime Minister's reforms, which are aimed at reducing inequality. A recent rise in corporation tax from 20% to 25% and labour market reforms that strengthen the power of trade unions may

(continued on the next page)

Extract A continued.

have a negative effect on business confidence.

- 35 Despite a “mildly contractionary” budget, Valdés insisted that the government would continue with costly reforms. Increased taxes on those on higher incomes are considered by the government to be necessary to sustain economic development in Chile. “We do want to change society, while recognising all the good things that have been done in the past 25 years,” said Mr Valdés, referring
- 40 to an average growth rate of 5.3% over the past three decades, but under 2% in 2015. There is broad consensus that investment in education is the key to unlocking Chile’s growth potential.

(Sources: adapted from <http://www.ft.com/cms/s/0/89926ce8-df96-11e4-a6c400144feab7de.html#axzz3pCnzT3PC> FT 20 April 2015 and <http://www.ft.com/cms/s/0/d60ac2b2-7453-11e5-a129-3fcc4f641d98.html?siteedition=uk#axzz3pCnzT3PC> FT 19 October 2015 and <http://www.ft.com/cms/s/0/d60ac2b2-7453-11e5-a129-3fcc4f641d98.html?siteedition=uk#axzz3pCnzT3PC> FT 19 October 2015 all by Benedict Mander)

Extract B

Chile's copper mining on a downward track

There was a time when investing in Chilean mining meant guaranteed success. After 1990, when military rule was replaced by an elected government, market reforms and restored relations with the US and UK meant foreign companies were keen to exploit vast copper reserves. The existence of large copper reserves in a stable country with a business-friendly government is rare, making Chile much more attractive to investors than countries such as Zambia.

By mid-2015, however, the copper price hit a six-year low. Chilean mines are becoming less productive. After 20 years of heavy digging, the ore is lower grade, and much further down. The deeper pits take longer to mine, and use more fuel. Wages are high, and trade unions are powerful. A mining truck driver earns \$70 000 a year, \$10 000 more than the US equivalent. Many mining projects that were planned are being postponed, and investors are looking to Peru; even the US copper mining industry is becoming more competitive.

Energy supply is also a worry as Chile produces virtually no fossil fuels and relies on imported coal and liquid natural gas to power its mines. Energy costs account for 18% of the cost of copper production.

Water supply is also becoming a major problem. Farmers and communities accuse mining companies of causing water shortages to keep their operations running. A prolonged drought has not helped. Mining firms are turning to desalination plants or using untreated seawater. However pumping water 200 kilometres from the Pacific Ocean to the copper mines is costly.

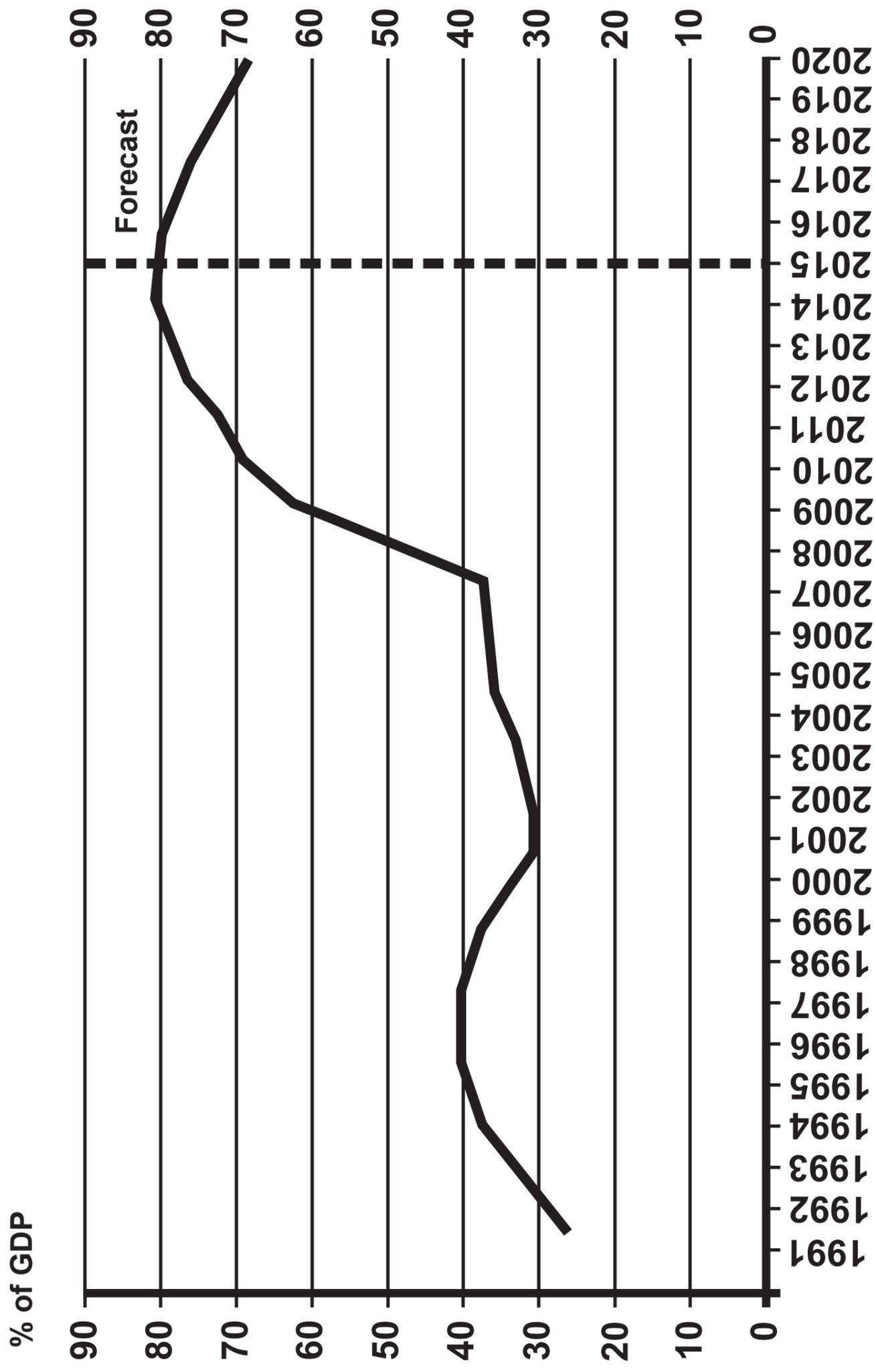
Chile's environmentalist movement has forced the government to tighten regulations. In 2001, it took 236 days to get an environmental impact assessment of a new mine approved. By 2013, this had increased to 506 days.

(Source: adapted from <http://www.ft.com/cms/s/0/ea060ef4-6ae2-11e5-8171-ba1968cf791a.html#axzz3p20if45k> Gideon Long September 27, 2015)

Question 2

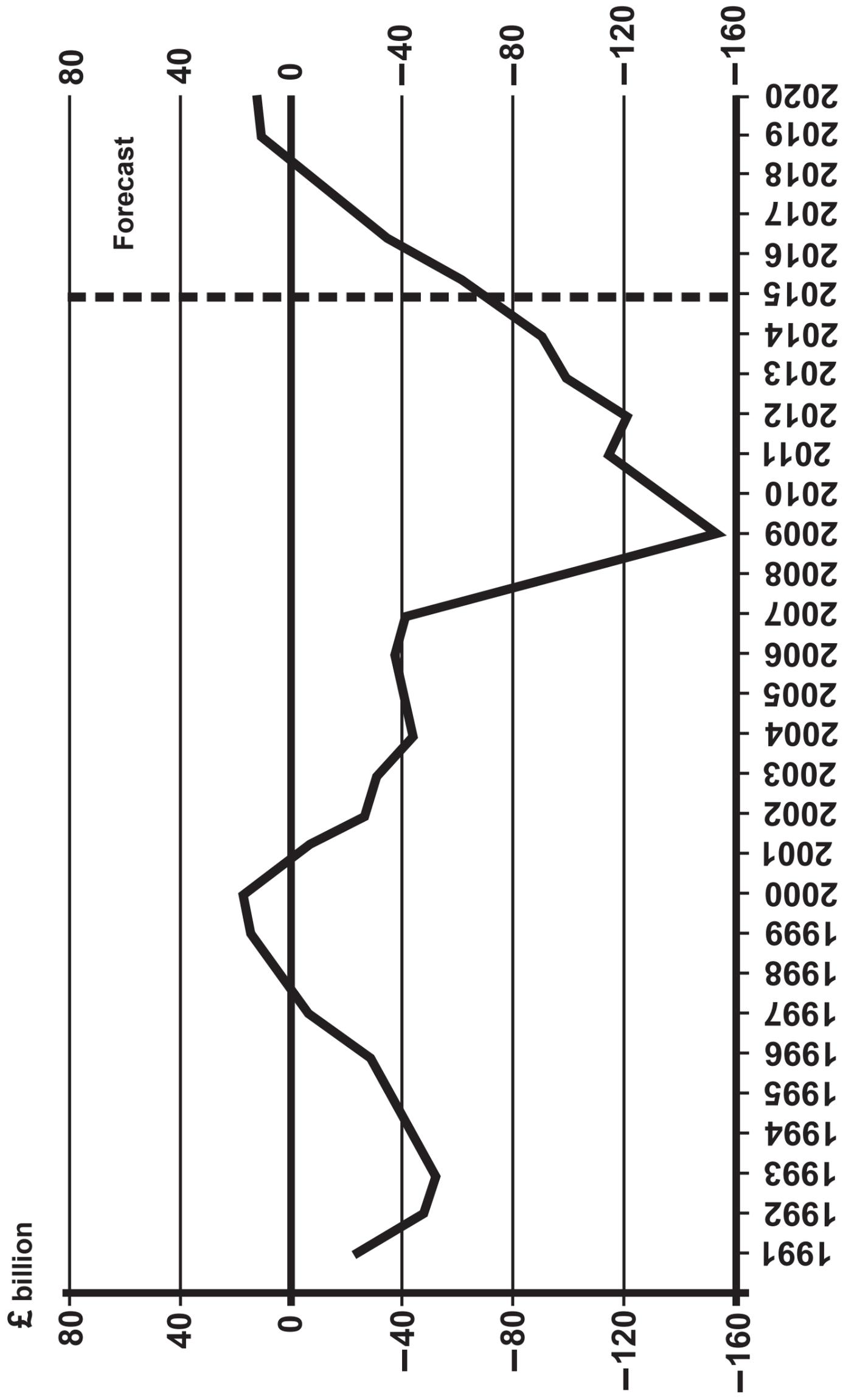
The UK economy

Figure 4: UK national debt as a percentage of GDP



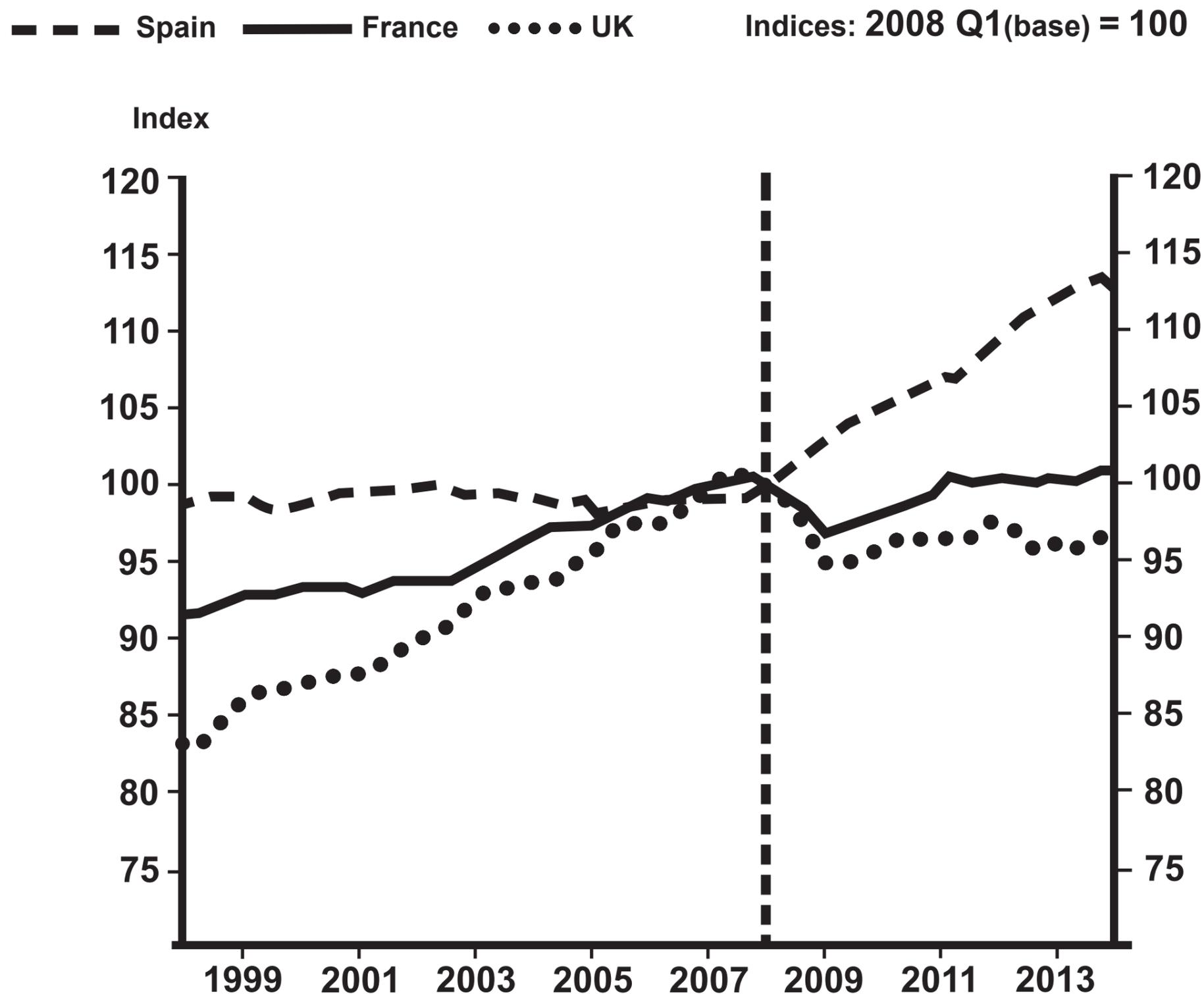
(Source: http://budgetresponsibility.org.uk/docs/dlm_uploads/BriefGuide_020511.pdf)

Figure 5: UK fiscal deficit, public sector net borrowing (PSNB)



(Source: http://budgetresponsibility.org.uk/docs/dlm_uploads/BriefGuide_020511.pdf)

Figure 6: Labour productivity per head, selected countries



(Source: <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q201.pdf>)

Extract C

The National Living Wage (NLW)

The Government has announced that from **2016** it will introduce a Living Wage Premium that will apply on top of the National Minimum Wage (NMW) for employees aged **25** and over to deliver a National Living Wage (NLW) for those people. The main NMW will continue to be set for all employees aged **21** and over, so that those aged **21** to **24** will continue to be subject only to that rate.

The effective minimum wage for the **25+** age group will therefore be over **13%** higher in **2020** than would otherwise have been the case, and result in a **0.3%** increase in wage costs overall. Further impacts on real GDP are estimated to be higher productivity (**+0.3%**) but lower average hours worked (**-0.2%**) and higher unemployment. Overall real GDP is forecast to fall by **0.1%** as a result of the NLW. However these forecasts depend on estimates of the likely elasticity of demand for labour.

Academic evidence suggests that changes to the NMW since **1999** have led to only limited effects on demand for labour in the UK. The types of work that will be affected are relatively labour intensive, which may limit the scope for firms to substitute towards using capital. Firms may also be expected to shift demand in favour of the under-**25s** given that they will not be subject to the NLW, which all else being equal would lead to a smaller reduction in overall labour demand. Some of the reduction in employees could also be partially offset by a rise in self-employment. But increasing the NLW to a higher proportion of median earnings may lead to bigger effects than have been experienced in the past.

(Sources: adapted from <http://cdn.budgetresponsibility.independent.gov.uk/July-2015-EFO-234224.pdf> and <http://budgetresponsibility.independent.gov.uk/>)

Extract D

The productivity puzzle in the UK

Since the onset of the **2007–2008** financial crisis, labour productivity growth in the UK has been exceptionally weak. Despite some modest improvements in **2013**, whole–economy output per hour remains around **16%** below the level
5 implied by its pre–crisis trend. Even taking into account possible measurement issues and changes in the size of the service sector, this shortfall is large and is often referred to as the ‘productivity puzzle’.

Measures of productivity can be used to inform estimates of an economy’s ability to grow without generating excessive inflationary pressure, which
10 makes understanding recent movements important for the conduct of monetary policy. During the initial phases of the recession, companies appear to have acted flexibly by holding on to labour and lowering levels of capacity utilisation in response to weak demand conditions. But the protracted weakness in
15 productivity and the strength in employment growth over the past two years suggest that other factors are likely to be having a more persistent impact on the level of productivity. These factors are reduced investment in both physical and intangible capital, such as innovation and training, and failings in the labour market such as immobility of labour and under–employment of skilled workers. Some economists explain this by using the concept of an output gap.

(Source: adapted from <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q201.pdf>)