J2 June Intensive Revision

**CSQ – Lesson 4 – National Income Accounting / Economics Indicators / How macroeconomics works? / AD-AS – Q1**

**The Eurozone Economy**

**Table 1: Annual Unit Labour Costs#, 2010 = 100**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Country** | **2011** | **2012** | **2013** | **2014** | **2015** |
| Germany | 100.7 | 104.0 | 106.0 | 107.9 | 109.9 |
| Greece | 98.7 | 96.7 | 89.6 | 87.3 | 87.6 |
| Eurozone (19 countries) | 100.6 | 102.5 | 103.8 | 104.8 | 105.5 |

# Unit labour costs measure the average cost of labour per unit of output and are calculated as the ratio of total labour costs to real output.

Wage has decreased – supply of labour increases – push down the wage level

**Table 2: Net trade in goods (value), US$ converted, seasonally adjusted (in billions)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Country** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| Germany | 195.82 | 209.71 | 240.95 | 259.56 | 281.94 | 273.33 |
| Greece | -39.12 | -33.87 | -27.75 | -25.70 | -28.29 | -19.55 |
| Eurozone (19 countries) | -26.28 | -38.21 | 100.43 | 198.56 | 235.99 | 267.52 |

Source: OECD.Stat, accessed 20 August 2016

# Extract 1: Is Germany's big export surplus a problem?

Germany's trade surplus – the excess in the value of its exports over its imports – hit another record in 2014. At 217 billion euros ($236 billion), it was Germany's biggest ever. Expressed as a percentage of GDP, Germany's 2014 trade surplus was 7.5 percent.

Why is Germany’s trade surplus so large? Undoubtedly, Germany makes good products that foreigners want to buy. For that reason, many point to the trade surplus as a sign of economic success. But other countries make good products without running such large surpluses. There are two more important reasons for Germany’s trade surplus.

Some economists point to the euro currency as a key reason for Germany's perennial export surpluses. By sharing the euro with a larger population of mostly less competitive economies, German exporters have a built-in benefit: a currency that's permanently weaker than it should be, though it may be still too strong for less competitive economies. That provides an artificial advantage to German exporters.

Germany’s gd is expensive – strong euro – price remains high – export demand is price -inelastic – export revenue will rise

Second, the German trade surplus is further increased by policies (tight fiscal policies, for example) that suppress the country’s domestic spending, including spending on imports.

(contractionary AD – decrease national income – decrease MD with a constant MPM)

In a slow-growing world that is short on aggregate demand, Germany’s trade surplus is a problem. Several other members of the Eurozone are in deep recession, with high unemployment and with no “fiscal space” (meaning that their fiscal situations don’t allow them to raise spending or cut taxes as a way of stimulating domestic demand). The fact that Germany is selling so much more than it is buying redirects demand from its neighbours (as well as from other countries around the world), reducing output and employment outside Germany at a time at which monetary policy in many countries is reaching its limits.

# Sources:

# (i) Ben Bernanke, Germany’s trade surplus is a problem, Brookings Institute, April 3, 2015 and

# (ii) Nils Zimmermann, Is Germany's big export surplus a problem?, DW, April 7, 2015

**Figure 2: Eurozone Debt and Unemployment**

Source: Eurostat, accessed 1 September 2016

**Unemployment – decrease in tax revenue as there is less contribution of the income / increase in unemployment benefit and fiscal expansion of government expenditure**

**Extract 2: Reconciling fiscal consolidation with growth and equity**

Fiscal consolidation is a policy aimed at reducing government deficits and debt accumulation. Fiscal consolidation complicates the task of achieving other policy goals as it weighs on demand in the short term. A number of fiscal consolidation instruments can enhance the long-term level of output.

**Table 3: Instruments of Consolidation**

|  |  |
| --- | --- |
| **Expenditure Cuts** | **Revenue Increases** |
| Public consumption: education | Personal income taxes |
| Public consumption: health | Corporate income taxes |
| Cash transfers: unemployment benefits | Environmental taxes |
| Subsidies | Consumption taxes (non-environmental) |
| Public investment | Sales of goods and services |

Some revenue measures can also contribute positively to long-term output when they promote more efficient use or allocation of services or resources that were previously inadequately priced. Better pricing the use of environmental services through taxation can lead to welfare gains through improved environmental amenities that are not measured in GDP.

However, spending reductions can bring about potentially large long-term losses in output when they cut into areas such as public goods or growth-enhancing services that are insufficiently produced by market forces. Cuts in health care can also reduce output per capita by reducing productivity. Through its contribution to well-being, health spending is most likely to have additional positive welfare effects that are not measured in GDP. **(decrease your national income / decrease the welfare of the citizens )**

Most fiscal consolidation instruments are harmful for growth in the short run and aggravate income inequality. In fiscal-crisis countries, the absence of consolidation could translate into a massive loss of confidence triggering economic collapse. If it helps to avoid such extreme scenarios, consolidation may be highly expansionary.

Source: OECD Economic Studies, 05 Feb 2014

**Extract 3: The Eurozone economy – frost in spring**

The once-sickly Eurozone is undergoing recovery which, though feeble, has nonetheless been sustained. More importantly, there are signs that the pace may be accelerating this year.

Despite these promising developments, there is still a concern that the recovery may have come too late and be too weak to avert the onset of deflation. Consumer prices are falling in several peripheral countries, notably Cyprus and Greece, but also now in Spain.

The development has prompted the European Central Bank (ECB) to cut its key interest rate to 0.05%, a new record low.

Sources:

(i) The Economist, 5 April 2014 and

(ii) The Telegraph, 4 September 2014

**Questions**

1. **(i)** Using Table 1, compare the trends in the annual unit labour costs in Germany and Greece. [1]
2. Identify and explain the relationship between unemployment rate and general government debt as seen in Figure 2. [3]
3. With reference to Extract 2, discuss the impact of fiscal consolidation on living standards in a country. [8]

**[Total: 30]**

**Suggested Answers**

**(a)(i) Using Table 1, compare the trends in the annual unit labour costs in Germany and Greece. [1]**

In general, from Table 1, annual unit labour costs rose in Germany but fell in Greece.

**(b) Identify and explain the relationship between unemployment rate and general government debt as seen in Figure 2. [3]**

There is a direct or positive relationship.

As the unemployment level in Eurozone ↑ (2008 – 2014), more workers faced ↓ factor incomes. More households’ incomes end up falling below a minimum level, which qualifies them to receive unemployment benefits and/or some form of transfer payments from the govt 🡪 ↑ in govt spending.

Simultaneously, due to progressive income tax ⇒ households’ nominal incomes fall to a low income tax bracket, thus they pay a lower % of income tax now 🡪 ↓ govt tax revenue.

More govt transfer payments and lower income tax paid due to ↑ UN 🡪 ↑ in govt debt 🡪 exhibits direct relationship

The converse holds true when the economy faced ↓ unemployment rate (2005 – 2008) and ↓ govt debt (exhibits direct relationship)

**(c) With reference to Extract 2, discuss the impact of fiscal consolidation on living standards in a country. [8]**

From Ext 6, fiscal consolidation is a policy aimed at reducing government deficits and debt accumulation 🡪 likely to be austerity 🡪 **contractionary fiscal policy (F/P) of govt expenditure cuts and tax increases as seen from Table 3**

Living standards 🡪 refer to material and non-material SOL; current vs future SOL

decrease real GDP – decrease in real GDP per capita / non-material SOL

**Thesis: fiscal consolidation raises living standards in a country**

**Fiscal consolidation helps to restore confidence, thus stimulating EG and reducing UN 🡪 improves material SOL in the medium term**

From Ext 6, fiscal consolidation is necessary in fiscal-crisis countries (which is the case for many countries in Eurozone), as it can help to avoid a massive loss of confidence triggering economic collapse 🡪 may thus be highly expansionary on the economy in the medium-term.

Such contractionary F/P 🡪 ↓ govt deficit and debt to more sustainable levels 🡪 in the medium term, restores investors’ and consumers’ confidence as govt is able to control its debt level. In contrast, high unsustainable govt debt level 🡪 firms and HHs may expect austerity measures in future to repay debt 🡪 withhold current investment and spending.

Thus, in the medium term, fiscal consolidation helps ↑ AD 🡪 ↑ actual EG and ↓ demand-deficient UN via k effect 🡪 <explain with use of AD/AS diagram>

**↑ AD from AD1 to AD2 🡪 firms deplete inventories (unplanned disinvestments) and then step up production in the next production cycle 🡪 employ more FOPs, including labour 🡪 workers receive factor incomes 🡪 ↑ income-induced consumption due to ↑ purchasing power 🡪 via this multiplier effect, workers in Eurozone who purchase more goods and services derive greater utility 🡪 enjoy ↑ material SOL.**

AS

GPL

real national output

AD1

Y1 Y2Y3

P3

P2

P1

AD2

AD3

**EV: without existence of spare capacity, i.e. as the economy reaches full employment, real output can ↑ only by a smaller extent (Y2 to Y3) 🡪 limits economy’s ability to ↑ output to satisfy wants and needs to ↑** material SOL (wages will not increase as output is low and demand for labour is low)

EV: difficult to find any strong evidence of the direct correlation between investors’ + consumers’ confidence levels and govt debt levels. Their confidence levels may be based on more immediate factors, like short-term EG rates, real wages etc. than govt debt levels. (lack of investment to increase production – real GDP and income will not increase)

**Fiscal consolidation helps to improve future SOL**

Furthermore, as I ↑ 🡪 expansion of productive capacity in the LR due to greater capital accumulation due to ↑ quantity and quality of resources 🡪 non-inflationary EG

From Ext 6, fiscal consolidation can enhance the long-term level of output by promoting more efficient use or allocation of resources. Via environmental taxes and/or cut subsidies (Table 3) 🡪 firms’ COP ↑ 🡪 firms’ profits ↓ 🡪 existing firms have to ensure that they produce at minimum costs and boost productivity levels to maintain profit margins 🡪 ↓ wastage of economic resources and ↑ productive capacity when these firms engage in R&D and/or training of workers 🡪 non-inflationary EG

Also, inefficient firms that continue to make losses due to environmental taxes and/or lack of subsidies cannot survive and hence exit the industry 🡪 frees up resources that can be utilised for more productive uses, e.g. R&D, training 🡪 boosts productivity and output 🡪 non-inflationary EG

Cuts in UN benefits and transfer payments to households 🡪 ↑ incentive to work harder and 🡪 ↑ productivity 🡪 ↑ competitiveness and stimulate non-inflationary EG

As the countries in Eurozone attain non-inflationary EG 🡪 able to produce more consumer goods in the future to satisfy wants and needs 🡪 ↑ future SOL <can explain using PPC>

Furthermore, as country sustains EG and ↓ UN 🡪 govt debt ↓ (explained in b) 🡪 less burden on future generation to repay a smaller debt 🡪 future SOL improves

**Fiscal consolidation helps to prevent over-production of g&s through the use of environmental taxes, thus improving non-material SOL**

From Ext 6, ‘better pricing the use of environmental services through taxation can lead to welfare gains through improved environmental amenities that are not measured in GDP’

For e.g. when chemical producing firms that dispose their chemical waste into rivers are imposed pigouvian taxes 🡪 ↑ firms’ MPC 🡪 ↓ profit margins 🡪 to maintain profitability, they partially cut back on production and/or find cleaner methods of production e.g. proper disposal of chemical waste or treatment of chemical waste before disposal 🡪 ↓ MEC when firms cut back production to socially optimal output level or does not suffer from water pollution 🡪 society benefits from cleaner environment and thus improvement in health 🡪 ↑ non-material SOL <students should explain with market failure diagram>

MPC1

MSC = MPC + MEC

*a*

$

Output of chemicals

QS = QP’ QP

*c*

*b*

MPB = MSB

(assume MEB = 0)

MPC2 = MPC1 + tax

Assume chemical production has no MEB i.e. MSB = MPB. Chemical production confers MEC on third parties 🡪 improper disposal of chemical waste into rivers 🡪 water pollution and residents living near these rivers consume the poisoned fish or contaminated water fall sick 🡪 incur medical costs of treating their illness. MEC creates divergence between MSC & MPC such that MSC > MPC.

Rational firms only consider MPB (revenue earned from the sale of chemicals) against MPC (marginal costs of manufacturing chemicals) and ignore MEC 🡪 produce up to QP, where MPB = MPC.

However, socially optimal output of chemical production should occur at quantity QS, where MSB = MSC 🡪 over-production of chemicals by QSQP amount 🡪 deadweight loss of area abc as the MSC of producing QSQP (area CAQPQS) exceed the MSB (area CBQPQS).

An environmental tax is imposed on the firm 🡪 ↑ MPC to MPC2 🡪 firm produces at QP’ where MPB = MPC2 🡪 aligns to QS 🡪 eliminates DWL 🡪 improves non-material SOL

**Anti-Thesis: fiscal consolidation lowers living standards in a country**

**Fiscal consolidation worsens EG, ↑ UN 🡪 ↓ current material SOL**

From Ext 6, ‘most fiscal consolidation instruments are harmful for growth in the short run as it weighs on demand in the short term’ 🡪 contractionary effects on the economy

**Explain how fiscal consolidation brings about contractionary effects**

↓ G expendit

ure on infrastructure e.g. schools and hospitals and ↓ public investment 🡪 ↓ AD

↓ govt spending on UN benefits and transfer payments 🡪 ↓ disposable income of unemployed and low income households 🡪 ↓ consumption 🡪 ↓ AD and ↓ material SOL especially for the unemployed and low income households

↑ personal income taxes 🡪 ↓ disposable income 🡪 ↓ consumption 🡪 ↓ AD

↑ corporate income taxes 🡪 ↓ post-tax profits 🡪 disincentive to invest 🡪 ↓ I 🡪 ↓ AD

↑ environmental taxes 🡪 ↑ firms’ COP 🡪 ↓ firms’ profits 🡪 ↓ I 🡪 ↓ AD

With the ↓ AD 🡪 ↓ actual EG and ↑ demand-deficient UN via k effect 🡪 ↓ current material SOL due to ↓ purchasing power to buy g&s

**Fiscal consolidation may worsen future SOL**

If the govt cuts spending and/or raises taxes in the wrong areas such as ‘public goods or growth-enhancing services that are insufficiently produced by market forces’ 🡪 can undermine long-term growth

Cuts in essential health care services e.g. ↓ vaccination services 🡪 ↓ productivity (Ext 6) as workforce fall sick more easily 🡪 ↓ output per capita and slowdown in growth of productive capacity as quality of resources ↓ 🡪 undermine potential EG. Also, cut in health spending 🡪 ↓ non-material SOL, which is supported by Ext 6 ‘through its contribution to well-being, health spending is most likely to have additional positive welfare effects that are not measured in GDP’

↓ G expenditure on education 🡪 ↓ workforce productivity 🡪 undermine potential EG

↑ personal income tax 🡪 disincentive to work harder especially for higher income workers 🡪 ↓ workforce productivity 🡪 undermine potential EG

↑ corporate income taxes 🡪 ↓ I 🡪 hinders potential EG due to ↓ capital accumulation

As the countries in Eurozone experience slower potential EG 🡪 ‘potentially large long-term losses in output’ 🡪 able to produce less consumer goods in the future to satisfy wants and needs 🡪 ↓ future SOL

**Evaluation: whether fiscal consolidation improves or worsens SOL depends on:**

1. how fiscal consolidation is being carried out, i.e. the specific areas / aspects that the govt cuts spending and raises taxes on 🡪 e.g. cuts in UN benefits, transfer payments to households and cuts in firms’ subsidies 🡪 stimulate EG into the long term 🡪 ↑ SOL. However, cuts in healthcare, education 🡪 undermine potential EG 🡪 ↓ SOL.
2. timing of the fiscal consolidation plans, which in turn depends on prevailing economic conditions of the different countries in the Eurozone 🡪 fiscal consolidation implemented on countries that are performing relatively worse than counterparts, i.e. with more economic challenges of deeper severity may end up being detrimental and self-defeating, since the austerity measures are likely to further worsen the gloomy economic outlook / impede the feeble recovery of Eurozone (Ext 7) 🡪 ↓ govt tax revenue and ↑ govt spending on UN benefits / transfer payments 🡪 fail to achieve aim of fiscal consolidation & ↓ SOL. It is better to aim for actual EG in the short term, but in the long-term review govt spending commitments and ↓ govt debt as % of GDP to sustainable levels, so as to ↑ SOL.
3. magnitude of govt debt as % of GDP 🡪 for countries with debt of unsustainable levels, it is much more difficult to ↓ govt debt and likely takes a much longer time as well as a combination of policies / multi-pronged approach to contain govt debt to sustainable level, so as to restore investors’ and consumers’ confidence 🡪 ↑ SOL.