Factors forn the golden age in europe

1939 – 1945 was one of the toughest periods in human history as economies and whole countries were ravaged by the conflict. All across Europe output and production was only a fraction of the pre – war numbers. Per Capita income dropped 25% in the largest Western European countries; Industrial output fell 20 – 40% across countries (Germany, France, Italy etc) and agricultural output was only 4/5ths of pre – war levels. The Great War resulted in the destruction of colossal amounts of factors of production, resulting in a fall in the available labour force and the loss of significant channels of input and output. This was in the backdrop of a setting where there was a savings constraint, meaning that it was hard to raise money for new capital formation and replacement; a foreign exchange constraint, which meant that governments were low on funds to pay with for purchase of goods from abroad and finally, a fiscal constraint, where, after several years of heavy spending on the war, governments were burdened with large debt that needed servicing, depriving money from fiscal stimulus programmes that could get the economy growing again. It is in this context that I shall explore the factors which were crucial in helping Europe to enter and experience a period of unprecedented economic growth known as the Golden Age, and the reasons why it ended in 1973.

The group of Western European economies most directly affected by the devastation of World War II witnessed a period of growth and stability in the two decades that followed. Between 1945 and 1970 income per capita grew at an average rate of 6. 62% per year in Germany, 5. 64% in Italy and 4. 61% in France. At such rates German income per capita doubled every decade, Italian doubled every twelve years and French doubled every decade and a

half (Cuadrado, 2005). From Table 1 and Figure 1 we can see that during the years 1950 – 1973, these countries were characterised by a high and slowly decreasing growth rate, an increasing capital – output ratio, a steadily increasing savings rate and an increasing wage share. When trying to explain the Golden Age of European Growth one should look at several things – why the economic growth was so rapid between WW2 and 1973; why different countries grew at different rates and why, it eventually came to an end.

Introduced in 1948 over a period of 3 years, the Marshall Plan transferred $13billion in aid from America to European countries, averaging 2. 5% of the combined GDP of the recipients. $2. 7 billion went to France, $1. 5 to Italy and $1. 43 billion to Germany. It provided enough to finance public expenditure, to eliminate bottle necks that obstructed economic growth and to guarantee the needed flow of imports at a time when public capital flight was occurring during the early fifties. Mee (1984). Whilst Eichengreen (1991) argues that the aid, of which 33% (De Long and Summers 1992) went to imports of raw materials and capital goods necessary for infrastructure development and investment, went to provided financing for public expenditure and helped eliminate bottlenecks that could have potentially obstructed economic growth, Milward (1984) suggests that growth would have been same even without the aid, whose only benefit was to help facilitate public investment dependent recovery process. Overall it’s hard to deny the interactions between government spending and growth, with Saint-Paul (1993) emphasising the beneficial role played by the French

government in providing the economy with new and modern infrastructure after the war.

Structural transformation of traditional economies, with substantial reallocations of resources from the agricultural sector to modern manufacturing sector resulted in large migrations from agriculture to manufacture that took place in post-war Europe. Temin (2002) argues that the period of growth in post war Europe was a result of the misallocation of resources which occurred by the economic and political models that dominated the interwar period. As a result too much labour was involved in agriculture for the level of income and stages of development of those European countries resulting in large rural to urban migrations in the post war period (Figure 2). Assuming that the productivity of labour and capital intensity are higher in the new manufacturing industries than the old agricultural ones, the migrations could potentially largely account for the substantial increases in output, capital – output ratio's and wage share witnessed during the Golden Period. This further explains why countries such as Britain had lower growth than Germany, which had 20% more labour in agriculture in comparison in 1950 (Broadberry 1997), and as such had more resources which required ' reallocation'. This can be seen in Table 2, where we can see that a rise in the comparative labour productivity in manufacturing didn't mirror the aggregate rise and as such can be conclusively said to be caused by sectoral shifts.

The surge of intra-European trade allowed for many positive effects such as shifting resources into more productive uses and curtailing the dominance of domestic monopolies. Furthermore, whilst the interwar period was

characterised by countries trying to purse self sufficient economic policies, growing trade once again allowed for the specialization of production and hence the ability to exploit economies of scale. Llewellyn and Potter (1982), assert that the move away from autarkic policies combined with the diffusion of the technological innovations of the 1930's further helped accelerate the growth rate of total factor productivity. Giersch et al (1993), point towards German import liberalization and the subsequent formation of the European Economic Community customs union as an important step in helping opening the domestic markets to competitive forces from abroad. The 1959 reforms meant that tariffs were reduced by 10% a year, with all legal barriers among members being eliminated by 1968, helping regional integration, as pointed out by Ben-David (1994). By 1960 West Germany's share of world imports and exports was greater than the territorially larger German Reich which preceded it before the War, with Hennings (1982) emphasising the large proportion of German products which had income elasticity of above unitary, meaning that demand for them rose with increase in income. There are however also different approaches to the trade view, with Saint-Paul (1993) being of the opinion that it wasn't so much the increase in the amount of trade going on, but rather the change in the structure of trade, increasingly moving to a intra-European trade model, away from a trans-Atlantic one.

Solow's framework is often used to provide a way to organize historical data on growth by listing population investment and total factor productivity as determinants of growth; however it ignores other variables and doesn't account for the differences between countries. Factoring in human capital and hence differences in education expanded on the model and explained

some of the differences between countries (Mankiw, et al. 1992). Whilst some historians (Crafts and Toniolo 1996) broadly assert that the rapid growth was partly a consequence of slow growth in the previous period, others go into more depth. Abramovitz (1986) claims that the preservation of the ‘ social capability’, i. e. level of education, organization of production and markets and the openness to competition, is more important for growth than the destruction of physical capital. In his view, the process of catch up depends on facilities for structural change such as labour supply and an increasing technological gap which allows for the rise in productivity, with limitation only occurring as the technological frontier is reached.

Eichengreen (1996) takes a different approach in that he believes that the growth and high levels of investment were related to the wage moderation and export growth which occurred at the time, making investment an attractive, profitable option. This in turn was due to government institutions and policies which had the goal of ‘ restraining’ workers from pushing for higher wages in return for productive, job creating and wage raising investments. Perverse incentives for workers to try and cash in on their enhanced productivity as a result of investment, and investor’s incentives to pay themselves the profits of wage moderation instead of reinvesting it, were curtailed by institutions which made reneging harder and increased incentives for honouring long term contracts. On the domestic side this included national wage, union representation on company boards and conditional access to government programmes. Internationally, institutions such as the General Agreement on Tariffs and Trade (GATT), which encouraged multilateralism, non discrimination and resulted in a series of

multilateral agreements on reductions of tariffs (Table 3), were set up in 1949 to help promote increased efficiency and specialization, although Eichengreen concludes that this served more as a prevention of negative effects rather than an encouragement of positive ones.

Eichengreen’s (1996) multiple suggestions for the end of the Golden Age reveal the absence of a specific explanation, with causes including the end of the Bretton Woods System (which was responsible for establishing adjustable pegging currency to the gold standard ($1 = 35 ounces), fixed exchange rates and special drawings rights for countries with a deficit) and the oil shocks of the 70’s, causing a supply-side shock; growth in the strength of unions, the end of the ‘ catch-up’ and reduction in the incentives to keep the bargains that produced the Golden Age. Kindleberger (1967) takes the stance that the differences in the rate of growth between countries were associated with the varying amounts excess labour supply present in those economies. Whilst elastic labour supply promoted economic growth by keeping wages low and preserving industrial peace, the eventual decline in the volume of cheap labour caused the economic growth to slow down.

In conclusion, we have looked at some of the explanations in regards to what caused the Golden Age of Economic Growth, and now we shall attempt to settle on the main reason and see if that brings us closer to answering what caused the end of the growth. We will first examine the Marshall Plan. Despite providing over $13billion in matched aid, it never accounted for more than 20% of total investment even at its peak. Milward (1984) points out that with the exception of Germany, Italy and Austria, industrial production per man hour in 1948 was equal to that of 1938. Eichengreen

(1992) concludes that the channels through which it worked (investment and import capacity) were relatively unimportant in the big picture, with the aid not large enough to stimulate growth by replacement or expansion of capital stock. It did however solve the “ marketing crisis” by restoring financial stability and the role of pricing mechanisms (Figure 3). Although the aid is estimated to have increased national income by 0. 5% over 4 years, it was no enough to make it a decisive factor in growth. Furthermore, even though there was on average a budget deficit of 10% of GDP in 1946, much of the restoration of infrastructure was completed before the plan came into effect, and whilst it eased the constraint on the import of raw materials in short supplies, it wasn’t a major force. The lack of correlation between Marshall Aid and growth can be seen in Figure 4. Next we examine the increased trade, through agreements such as GATT. Irwin (1995) concludes that whilst it didn’t stimulate rapid liberalization of world trade, it did help create a commitment to an open and stable world economy that stimulated recovery through trade and specialization as well giving birth to the International Bank for Reconstruction and Development. Finally, we shall use the following regression model to find the impact of 1) Conditional convergence; 2) Wartime destruction that deranges production in short run and 3) excessive labour in agriculture (Temin 2002).

$$g = a + b (y^* – y) + c\,GAP + d (A – A^*) + e = (a + by^* – dA^*) – by + c\,GAP + dA + e$$

where, g is average growth rate of y, per capita GDP; GAP is the percentage gap between per capita GDP in 1948 and 1938 and A being the labour force

in Agriculture, with A* being the equilibrium share. Growth is regressed on current income with A* being same for all countries (table 3 & 4).

The results tell us that all three had an impact at different times with wartime destruction affecting immediately after war, labour transfer in between and finally conditional convergence towards the end. The wartime destruction and misallocation of resources ceased to have an effect on growth around 1970, meaning that when these disequilibria were removed, the Golden Age came to an end. .

Tables and Figures.

Table 1, Cuadrado (2005)

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Figure 2, Cuadrado (2005)