

## GLOBALIZATION AND INEQUALITIES IN DEVELOPED ECONOMIES: KUZNETS WAS NOT RIGHT

### GLOBALIZACIÓN Y DESIGUALDADES EN ECONOMÍAS DESARROLLADAS: KUZNETS NO ESTABA EN LO CORRECTO

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#### **ABSTRACT**

In this paper we first review the concepts of Globalization and Inequality, paying special attention to the conclusions reached previously by Simon Kuznets and his followers. Later we carry on with an international comparison between Sweden and the United States for the period 1913-2012. We depict the evolution in inequality levels for both countries, based in two main indicators: the Gini Index and the top 1% income share. Our findings point out that inequality has strongly risen in the United States whilst Sweden's level of inequality is not far from the one presented immediately after the World War II. These

results may indicate Sweden's higher ability to deal with the globalization aftermaths.

**Key Words:** Globalization; Income Distribution; International Comparison.

**JEL:** F02, N10, O15.

#### **RESUMEN**

En este trabajo primero revisamos los conceptos de globalización y desigualdad, prestando especial atención a las conclusiones alcanzadas anteriormente por Simon Kuznets y sus seguidores. Más tarde seguimos con una comparación internacional entre Suecia y los Estados Unidos para el período 1913-

2012. Nosotros representamos la evolución de los niveles de desigualdad para los dos países, con base en dos indicadores principales: el Índice de Gini y el 1 % de cuota de ingreso. Nuestros hallazgos señalan que la desigualdad ha aumentado fuertemente en los Estados Unidos, mientras que nivel de desigualdad de Suecia no está lejos de la que se presenta inmediatamente después de la Segunda Guerra Mundial. Estos resultados pueden indicar mayor capacidad de Suecia para hacer frente a las secuelas de la globalización.

**Palabras clave:** Globalización; La distribución del ingreso; Comparación Internacional.

## INTRODUCTION

The rise of globalization has highly affected one of the major topics in economics debate, one in which is frequently too difficult to reach consensus: inequality. During most history the vast economic interests shaped the world panorama, and it still seems to be the case. It is, however, not new to find different approaches about the role that the government should play in the economy. Actually, this interesting but complex debate dates back to the 18<sup>th</sup> century, when Locke, Hume and Adam Smith raised a relevant question: Which role should the government play in the domestic economy? All of them recognized that the government or the “State” –as they used to refer to it– was

necessary. Nevertheless, the differences between the various schools of thought arose when establishing the limit to government intervention.

It has been more than two hundred years and we are still stuck in the same debate, facing the same question over and over again: What should and should not be done by the government? Even though we still deal with the same question, the consequences of no answering it are far more important and disastrous. It might seem unrelated to get back in time 200 years to address a topic as flourishing as globalization but, as long as globalization is tied up to inequality, doing so can be highly valuable. Whatever globalization or inequality is, it has something to do with the role the government plays.

The rising of globalization has been accompanied by the debate of whether it comes at the cost of growing inequality. Several economists have tried to shed some light into this issue, although the conclusions of different researchers are too different and too varied to hold a clear stand. Critics of globalization have argued that it accentuates inequality both within and between countries (Firbaugh, 2003; Wade, 2004); and advocates of globalization refute this hypothesis by arguing that millions of households left poverty behind, closing so the inequality gap (Dollar and Kraay, 2002). But what if both are right, or partially right? Is it that possible? Actually it is. Mills (2009)

argues that the contradictory findings can be explained by methodological problems<sup>1</sup>. Then, what if globalization has reduced the gap between countries but enlarged it within countries? If that is the case, the role that the government should play in the domestic economy gains in importance. Is it possible to enjoy the fruits of globalization, avoiding its setbacks?

In this paper we first introduce the concepts of globalization and inequality. Later on we look at the available data for the two countries of interest: United States and Sweden. This international comparison may point out that the role of the government is critical for achieving desired inequality outcomes as affording international openness through globalization.

## RELATED LITERATURE

As we previously said the role of the government is crucial in both, globalization and inequality. A government can decide to embrace globalization, and consequently international trade, or it can engage in a protectionist policy. By the same token, a government can choose to fight inequality or not. Accordingly, both decisions will mark the direction of the domestic economy and society.

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<sup>1</sup> Review Mills (2009) to find out what the four methodological problems are.

It is well documented that most of the world economies have embraced globalization, following so the pioneer approach of the United States in the late 1970s and early 1980s. But what is globalization and what does it mean? Globalization can be defined according to three major tendencies: i) internationalization of markets; ii) tougher tax competition between countries; and iii) worldwide interconnectedness through the always rising ICTs (Information and Communication Technologies).

The internationalization of markets reveals the decline in the importance of the national borders for the economic transactions. Broadly speaking, it means that now tariffs are lower than ever before and that some countries are engaged in free trade agreements, such as the NAFTA or the regime enjoyed by the European Union countries. The second aspect of the globalization is connected to the tax competition between countries, which clearly shows the implementation of several neoliberal policies. Concretely, we are referring to deregulation, liberalization and privatization. Governments decided to alter tax system structures in order to be more competitive and attract capital and labor (Massey, 2009)<sup>2</sup>. Third, ICTs, together with internationalization and liberalization, allowed firms to work on a real-time basis across the world

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<sup>2</sup> The most striking example is probably Ireland with its aggressive tax incentives to attract international capital.

(Greenspan, 1997). These three main changes in the world panorama lowered transaction costs, raised productivity, and altered the world demand of labor.

How did globalization altered or modified the world demand of labor? With the advent of globalization firms enjoy a wider range of decisions: they can now embrace offshoring and decide how much labor keep in the home country and how much move abroad. This obviously means a drastic change for doing business, but also for the income distribution. As long as the labor costs are lower in developing countries, firms decide to move production to these countries. Thus, it is not surprisingly to find the following pattern: an increase in the highly qualified knowledge-skilled labor in the developed countries, and a raise in the demand of lower-skilled workers in the developing countries.

This change in the world demand of labor affects inequality, which basically refers to the gap in the different income distributions. This new trend, created by globalization, brings a completely different set of consequences for the different countries, depending if they are developed or developing.

In recent years we have witnessed a raise in the demand –and consequently a wage increase– for high-skilled labor in

developed countries, and a reduction in the demand of the low-skilled workers. However, the state of affairs in developing countries is distinctive: the demand for high-skilled labor is continually increasing<sup>3</sup>, which keeps pushing wages upward. Thus, globalization tends to close the gap between countries, lowering wages for low-skilled labor in developed countries and raising income for high-skilled labor in developing countries. The overall effect is a reduction in inequality between countries due to the reduction in the world gap of income distribution. Empirical results indeed support this argument. Sala-i-Martin (2006) analyzed data for 138 countries and showed that during 1979 and 2000 inequality across countries sharply declined. Milanovic (2005) also drew similar conclusions. It seems clear that Dollar and Kraay (2002) were right when affirming that globalization lifted millions out of poverty and closed the inequality gap. Take, for example, the cases of China and India, where the average income level increased by a factor of 35 and 6 respectively<sup>4</sup>, for the period 1980-2013. Nonetheless, that only explains half of the story. What happens to equality within countries? Does it also declines? To answer this question we would address an international comparison between the United States and Sweden.

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<sup>3</sup> What it is considered as low-skilled labor in the developed countries is usually considered high-skilled labor in the developing countries given that these workers need to improve its prior level of knowledge.

<sup>4</sup> Data obtained from the WorldBank Database.

## DATA AND METHODOLOGY

In this section, we briefly describe the data we use and where does it come from. The main source for the income distribution data is The World Top Incomes Database for the period 1913-2012. It relies on tax returns statistics compiled annually for both, the United States and Sweden. The income definition we use is the same as the one used by Piketty and Sáez (2001). So, we compute all the income items reported on tax returns, such as: salaries and wages, dividends, interests, rents, and all the other items reported as income. We use the top 1% income shares for two series: one excluding capital gains, and other including them. For the Gini index we use the data available in the OECD Statistics. Accordingly to the World Bank, the definition of the Gini Index measures the extent to which the distribution of income among individuals within an economy deviates from a perfectly equal distribution. Thus, a Gini index of 0 would represent perfect equality, while an index of 1 perfect inequality<sup>5</sup>. Unfortunately, in the case of the Gini index we only found available data for the period 1974-2012.

The first part of the analysis shows which country allows a higher degree of inequality, depicting the income shares for the top 1% of the population. The figures

offered here are the result of computing the data through statistical software SPSS. On the other hand, the Gini index shows the overall inequality degree within a country.

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<sup>5</sup> Alternatively, the Gini index can be, and often is, expressed in an scale from 0 to 100.

Table 1: Gini Index for United States and Sweden, 1974-2012

	United States	Sweden
1974	.3165	-
1975	-	.2124
1976	-	-
1977	-	-
1978	-	-
1979	.3098	-
1980	.3074	-
1981	.3145	-
1982	.3281	-
1983	.3362	.1975
1984	.3373	-
1985	.3396	-
1986	.3390	-
1987	.3401	-
1988	.3443	-
1989	.3484	-
1990	.3491	-
1991	.3464	.2092
1992	.3524	-
1993	.3689	-
1994	.3656	-
1995	.3607	.2113
1996	.3627	-
1997	.3639	-
1998	.3571	-
1999	.3538	-
2000	.3566	.2426
2001	.3599	-
2002	.3763	-
2003	.3737	-
2004	.3601	.2341
2005	.3804	-
2006	.3836	-
2007	.3761	-
2008	.3782	.2593
2009	.3787	.2691
2010	.3803	.2691
2011	.3893	.2734
2012	.3899	-

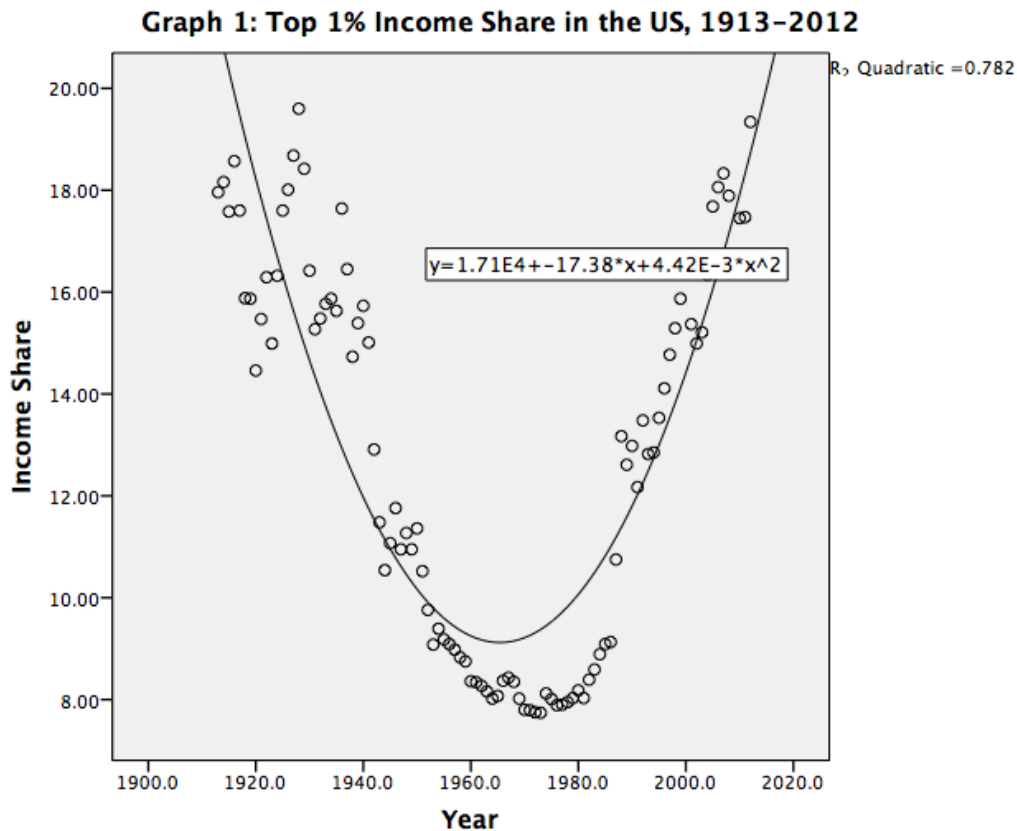
Source: OECD Statistics. Data extracted on 21th December 2014.

**RESULTS**

**The United States versus Sweden: Inequality**

Graph 1 plots the Top 1% income share in the United States for 1913-2012, excluding capital gains. As we can observe, we find a U shape distribution, which means a quadratic relationship, with a reliability of .782. The evolution of the income share for the top 1% in the

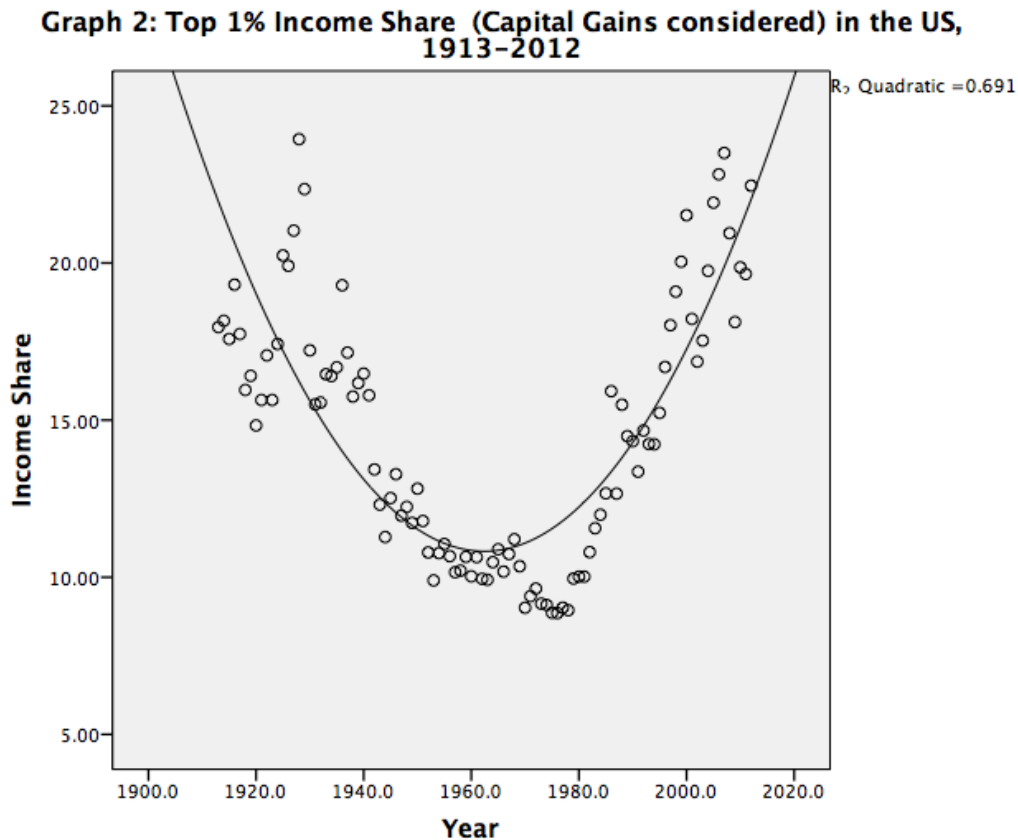
United States sharply decreased from 1913 to 1980, which may be explained by the World War I, the Great Depression and the World War II. However, just after the neoliberal policies adopted by President Reagan in the late 70s and early 80s, inequality have strongly increased, to the extent of reaching the prior levels of 1910s. The top 1% hoarded as much as the 18-20% of the US' income in 1910s and so do now.





One may argue that Graph 1 excludes capital gains but when including them, we obtain similar results, as shown in Graph

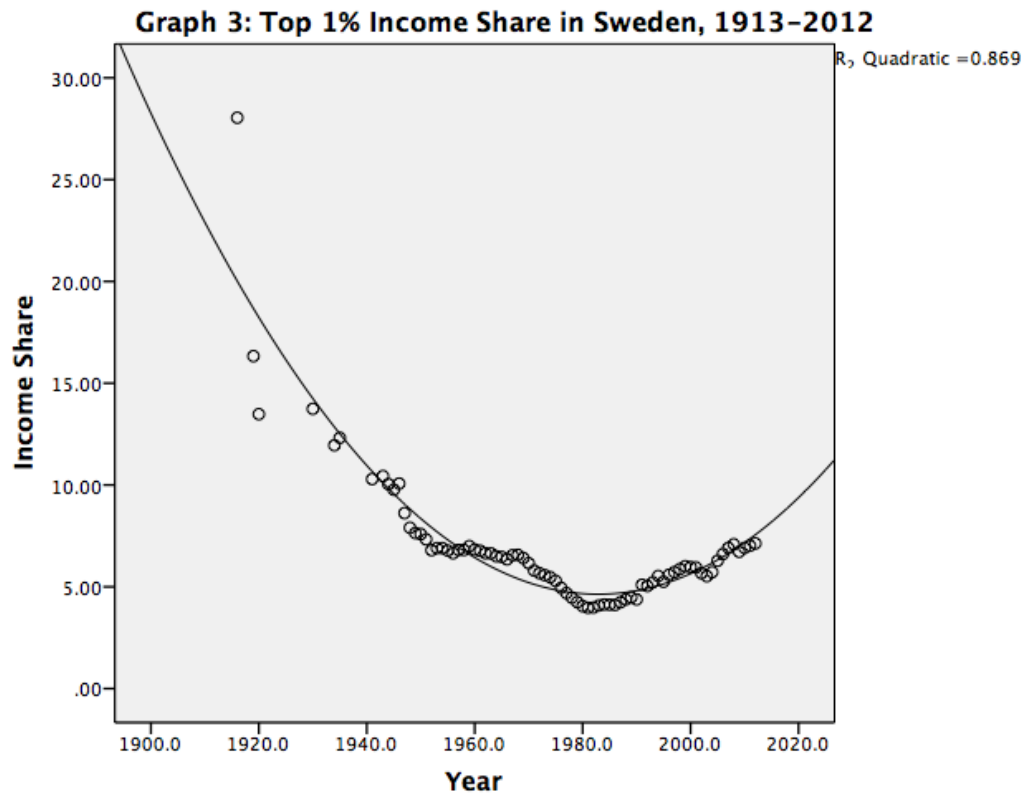
2. The only difference is that now, the top 1% hoards even a bigger share of the whole US' income, around 20-25%.



If we look at the top 1% income share (excluding capital gains) for the case of Sweden, which is shown in Graph 3, we reach different conclusions. First of all, we find once again a U-shaped distribution with a reliability of .869. The top 1% of population hoarded even more income share in Sweden than in the United States during 1913. However, inequality suddenly decreases to remain much

lower than in the US. Even when we find the same trend in both countries –inequality decreases until globalization takes off, and it later increases– Sweden finds a way to maintain lower levels of inequality. Sweden's top 1% income share is around 7.5% in 2012 as the United States presents levels as high as 19%.

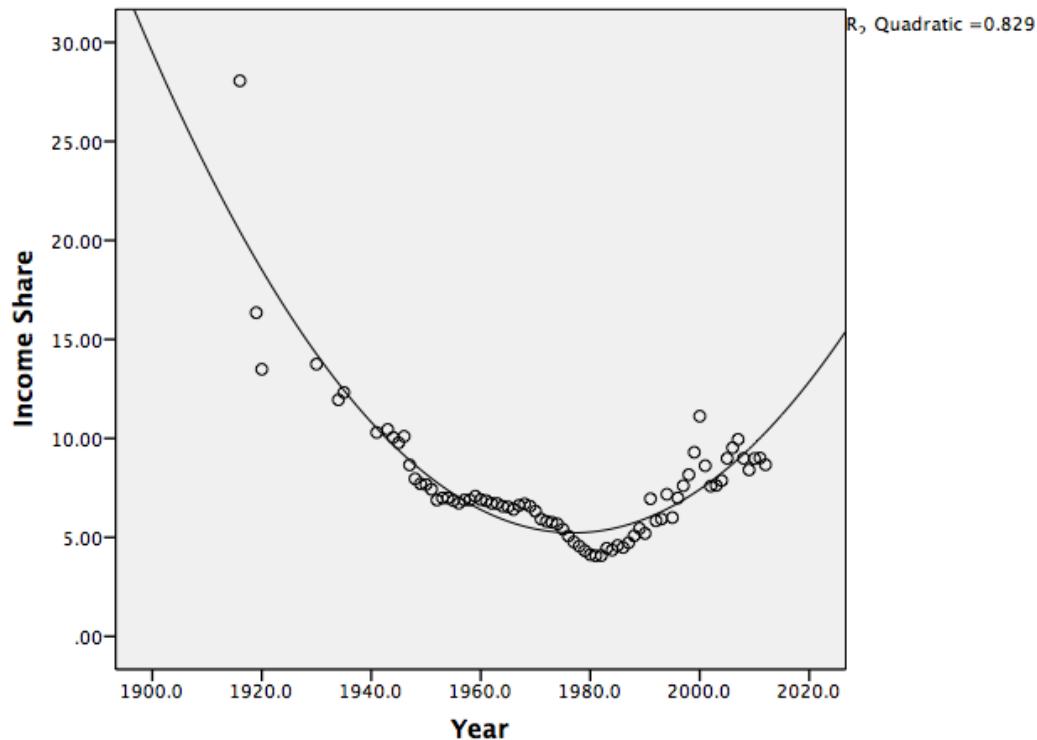




Once again, if we plot Sweden's top 1% income shares including capital gains, we achieve the same results: inequality levels fall until globalization takes off and after

that it increases again, although Sweden's inequality levels remain somewhat steady whilst the US' inequality levels return to 1910s levels of inequality.

**Graph 4: Top 1% Income Share (Capital Gains Considered) in Sweden, 1913–2012**

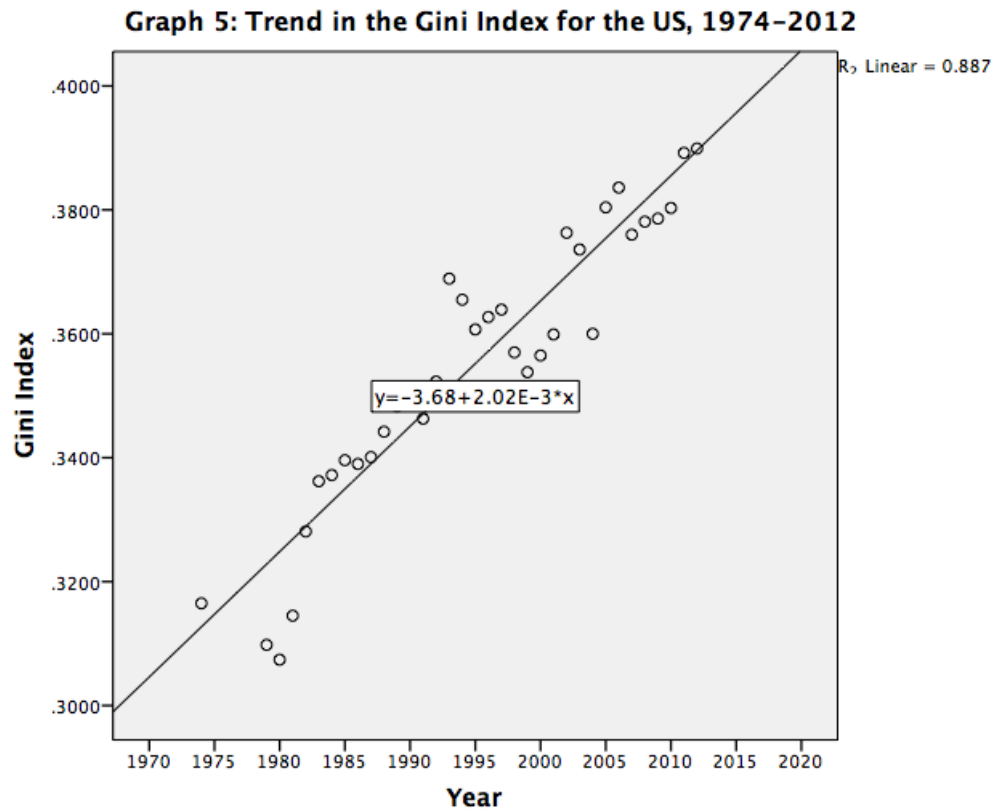


It is also remarkable that the case of the United States and Sweden highly contradict Kuznets hypothesis. According to Simon Kuznets' pioneering work (1955), we expect income inequality to follow an inverse-U shape along the development process of a country: rising with industrialization and declining when more workers join the high-productive sectors of the economy. However, the Kuznets curve turns out to follow the U rather than the inverse-U shape in both countries, but especially in the case of the United States.

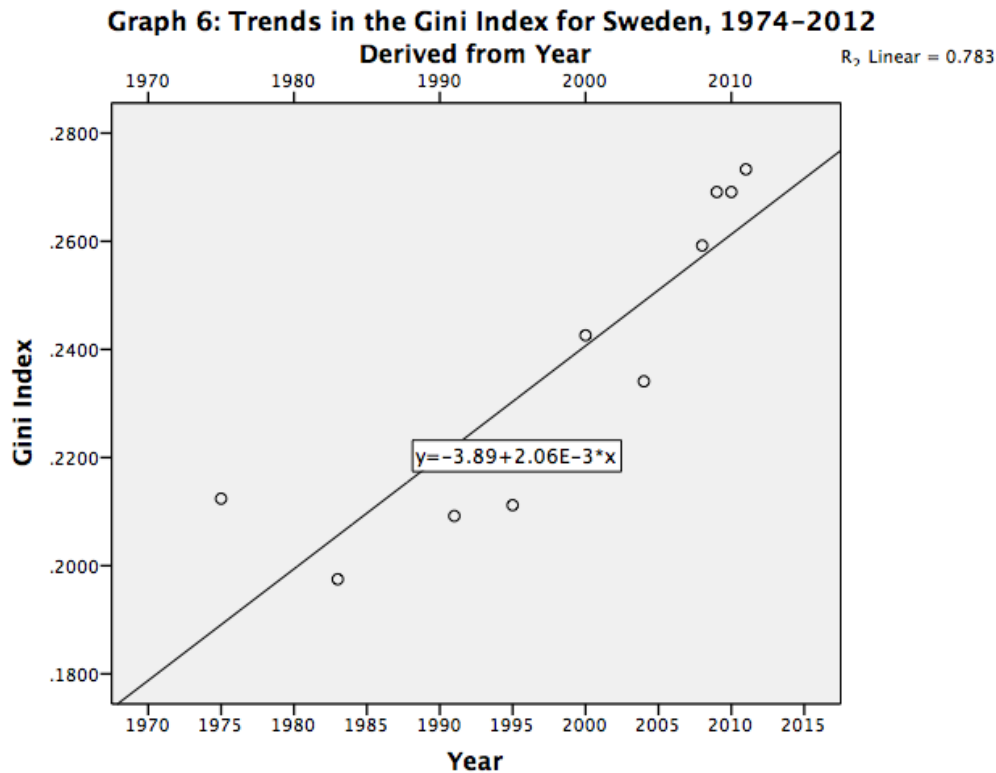
Regarding to the Gini index, we can affirm that inequality is much greater in the US than in Sweden as the Gini index presents higher values<sup>6</sup> for the United States. The US presents values around .39 for 2012 whilst Sweden fluctuates around 0.27, which indicates a huge difference between both countries level of inequality. Furthermore, we can also carry on the assumption of a steady inequality in Sweden and a strongly rise in US' inequality. If we closely look at Graphs 5 and 6, we can conclude that no relevant

<sup>6</sup> Please note that Table I shows the Gini Index values for both countries.

changes in Sweden's Gini index<sup>7</sup> occurred in the dates that are missing.



<sup>7</sup> Graph 5 and 6 allow us to carry on the assumption of no bigger changes in Sweden's Gini index as long as the reliability of both regression models are .887 and .783 respectively.



## CONCLUDING REMARKS

At this point we can briefly summarize our findings about globalization and inequality. Globalization is closely linked to inequality, although it is not a positive or negative relationship itself, but rather depends on the focus of the analysis. When we look at the effects of globalization upon world income inequality, we find that globalization reduces the gap between developing and

developed countries as other authors have proven for China and India. This is true in part because offshoring raises the demand, and consequently the wage, of developing countries' workers.

However, the extent in which globalization affects national borders is not clear. We examined inequality in both, the United States and Sweden finding diverse results: as Sweden level of inequality remains practically steady since 1945, the

United States level of inequality has risen to get back to levels of 1910s. Thus, the approach with which the government faces globalization matters. The difference between the United States and Sweden's level of inequality might be explained by the progressive higher taxes in the latter. As Piketty and Sáez (2006) pointed out higher taxes would be needed in order to reduce inequality within countries or regions.

As it can be expected globalization brings winners and losers, as it is a usual characteristic of every economic policy or phenomena. In this case, the high-skilled workers will earn a higher wage, whilst the lower-skilled labor force will suffer from reductions in income. Nevertheless, and as noted earlier in this paper, the government has to say big deal about how much someone can win or lose. This is a complex ideological debate that, through the design of the tax system, sets the routes of a society's path. Thus, there is no a correct or a wrong answer, it is just about in which world we want to live. Every country should ask to its citizens how does look the society where they want to live; do they tolerate high levels of inequality or do not?

In conclusion, this empirical research contradict Kuznets hypothesis, because the Kuznets curve turns out to follow the U rather than the inverse-U shape in both countries, but especially in the case of the United States. We should also

acknowledge that the dataset used for this analysis is somehow scrappy given that it only covers two countries. Furthermore, the data available from the Gini Index is far from desirable. In future research we will address some other issues related to this research. Our main concern is to offer further explanations of what lead Sweden and the US to the positions they held today, i.e. we will explain in detail the evolution of their tax systems.

## REFERENCES

- Dollar, D., and Kraay, A. (2002). Spreading the Wealth. *Foreign Affairs*, 81, 120-133.
- Firebaugh, G. (2003). *The New Geography of Global Income Inequality*. Cambridge, MA: Harvard University Press.
- Greenspan, A. (1997). The Globalization of Finance. *The Cato Journal*, 17, 1-8.
- Kuznets, S. (1955). Economic Growth and Economic Inequality. *American Economic Review* 45(1), 1-28.
- Massey, D. (2009). Globalization and Inequality: Explaining American Exceptionalism. *European Sociological Review*, 25, 9-24.
- Milanovic, B. (2005). *Worlds Apart: Measuring International and Global*

*Inequality*". Princeton, NJ: Princeton University Press.

Mills, M. (2009). Globalization and Inequality. *European Sociological Review*, 25 (1), 1-8.

Piketty, T., and Sáez, M. (2001). Income Inequality in the United States, 1913-1998. *NBER Working Paper* No. 8467.

Piketty, T., and Sáez, M. (2006). The Evolution of Top Incomes: A

Historical and International Perspective. *NBER Working Paper* No. 11955.

Sala-i-Martin, X. (2006). The World Distribution of Income: Falling Poverty and the Convergence Period. *The Quarterly Journal of Economics*, 121, 351-397.

Wade, R. H. (2004). Is Globalization Reducing Poverty and Inequality? *World Development*, 32, 567-589.