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# IMMIGRATION AND ILLICIT DRUGS: TWO CASE STUDIES AND THEIR CONNECTION WITH SELECT EUROPEAN COUNTRIES, AND POTENTIAL IMPLICATIONS FOR AMERICAN POLICY

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IMMIGRATION AND ILLICIT DRUGS: TWO CASE STUDIES AND THEIR  
CONNECTION WITH SELECT EUROPEAN COUNTRIES, AND POTENTIAL  
IMPLICATIONS FOR AMERICAN POLICY

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Economics

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By  
Seth Huffman  
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## ABSTRACT

Two topics of much debate in the United States, immigration and drug prohibition, are issues that all countries must scrutinize. I have taken two Euro areas, Scandinavia and Portugal, and have attempted to use them as templates for the United States so to draw potential policy implications. Scandinavian countries can be characterized as having pull factors in the form of welfare policies, which draw immigrants to those countries. It is hard to deduce whether this has a negative effect on the country because immigrants, not only use services, but are also consumers. This creates a problem as we try to compare those countries to the United States, because the U.S. is not a welfare state. We find that in order to control the situation acceptance of trade-offs are necessary. Furthermore, I use Portugal as a model for how the United States should conduct its drug policy. As we know, drug prohibition fosters cartelization, violent and nonviolent crime, spread of disease, and overdosing. Portugal has fundamentally reduced those harms by decriminalization. Here, we find that the United States must also consider a set of trade-offs.

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## **1. Introduction**

When reflecting on the current presidential regime, many believe that the United States is being transformed into a socialist state. Much of this discussion stems from a wide range of constituents, and is attributed to the implied direction that President Barack Obama's policies would appear, as some would say, to be moving. Indeed, a type of nationalized healthcare reform seems to support that notion, but the thought of a nationalized healthcare system alone should not define a nation as socialist. It may be best to characterize the direction that the United States could potentially be moving as a European type welfare state. By definition, socialism is a theory of social organization advocating ownership, or regulation of, production, distribution, and exchange, by the community as a whole. With having such a broad definition at hand, there are only few countries that would fit such a description, i.e. People's Republic of China, Cuba, Laos, North Korea, and Vietnam. Given this precise definition, any scholar would be hard pressed to agree that the United States is evolving into a socialist state. The potential direction, if any, that the United States would appear to be on the coattails of is something similar to that of the European style welfare states. The purpose of this paper is not to persuade any one party politically, but rather create a hypothetical environment that may give us insight as to whether social/welfare state policies may be beneficial, suitable, or even sustainable, for the United States, and under what conditions this may be possible.

Conventional wisdom tells us that these modern day welfare states are implemented with the intention to protect some members of the constituency, and to

garantee a minimum standard of living, or other safety nets. Welfare states strive to achieve certain goals such as: inclusion and cohesion of all cohorts, and productivity growth. The principle purpose of the welfare state is to provide indemnity against occasional instances of bad luck, to transfer resources over the constituent's life cycle, and to fix free market consequences that may result in excess disparity or exclusion. In general, a welfare state may choose to provide for those who are in need of disability services, education, health service, and subsidized housing. This type of policy structure typically incorporates into their system distinct policies to address areas such as unemployment, nationalized healthcare, and pensions for the aging population.

Many welfare states have found themselves dealing with equity/efficiency trade-offs. These trade-offs have the potential to usher in negative effects on the economy, especially to those countries with a low priority on equity, which advances poverty and inequality. Besides the usual (static and dynamic) efficiency-equity problems, European welfare states face a number of challenges in modern times: heterogeneity among constituents, globalization, migration and demographic changes, most notably the aging population. So should the European welfare state be considered a fundamental right or merited virtue? Or is it a burden for future competitiveness and development? And how could the United States economy potentially survive under similar conditions? To answer these questions I will analyze selected characteristics of two particular European welfare states, and from there, will interpret how the United States may react if it were to adopt similar policies. Although there are myriad manifestations of the welfare state, I focus on two characteristics of the welfare state: immigration and illicit drugs. These two

issues have come to the forefront, and are oftentimes platforms for which politicians use as selling points. Consequently, it is my contention that these issues deserve further analysis.

The first topic to be covered is immigration. Scandinavia has enjoyed a rather high standard of living as compared to, not only Europe, but to the rest of the world. With having such a homogenous society, it may stand to reason that changes in the inflow of immigration carries the potential for a decline in the already high standard of living. I investigate whether a policy applied in Scandinavian countries would have the same effect in the United States, and if not, what are the policy implications that the U.S. should consider? As it turns out, contrasting push-pull factors make comparison for both the U.S. and Scandinavian countries exceedingly difficult, but at the same time, shed light on aspects that deserve special consideration in policy debates.

Secondly, in the United States, a great divide has developed between those who advocate decriminalization of illicit drugs, and those who don't. Decriminalization refers to the removal of all criminal laws relating to the operation of the industry. Legalization differs as it refers to the use of criminal laws to regulate or control the drug industry by determining the legal conditions under which the drug industry can operate. Many of the proponents against decriminalization cite the damaging effects of drugs on the mind and body, increased availability, and increased crime as their motivation for the continued support of the prohibition of illicit substances in the United States. Some countries have taken the step to decriminalize illicit drugs. Portugal, for one, has seen astounding success with their policy in which all drugs were decriminalized. I argue the point that

the United States should follow in the footsteps of Portugal's policy initiation. My contention is that, not only the United States, but also those countries that participate in the trafficking of illicit drugs via cartels, would benefit greatly from their decriminalization. My argument follows the pragmatic consideration of the cost and benefits associated with decriminalization of illicit drugs. Furthermore, I will offer suggestions as to how to fine-tune policy, which may help to increase efficiency to systems, such as that of Portugal.

Although my research reaffirms data that many intellectuals have compiled in previous studies, there is a great portion of the arguments that I provide which accentuate said scholar's research, as well as, add additional perspective and original insight. I am confident that the aforesaid arguments will initiate further discussion among intellectuals, and amidst those who have a particular stake in the developments that arise from my research, or any future research that may precipitate concerning these topics.

## **2. Impact of immigration on the US and the Scandinavian countries**

Immigration is a contentious topic on both sides of the Atlantic. Arguably, the concept of immigration has different connotations in Europe and in the US. When taking the homogenous populations of the Scandinavian countries, enjoying a high degree of income equality and growth, views on immigration may diverge even more from those in the United States. Intuitive hypotheses on this comparison may thus be crudely drawn from knowledge of the countries' respective history, societal structures and public opinion. Focusing on the economic consequences of immigration, these are contested at

best, and obviously differ within contexts. Does this entail that the characteristics of American society, economy and policies lead to immigration having a different effect than what we see in certain European countries? This section adopts a comparative perspective and considers the effects of immigration in the US and Scandinavia, paying special attention to labor market and social protection schemes.

### **Roy-Borjas Model of Self-Selection**

In order to gain a better understanding of what may be driving immigration in both the United States and the Scandinavian countries, a brief explanation of the Roy-Borjas Model is warranted and is furthered by Bodvarsson and Van den Berg (2009). Under the Roy-Borjas framework, an increase in the reward for skill in the host country will create greater flows of migration and a transformation to the composition of migrants to the more skilled segment.

Consider two countries: A and B. Both will have identical mean earnings, but unequal distributions of income, where returns to skill are higher in country A. If returns to migration are dependent upon one's skills, the more skilled workers will fare better in country A. Under this assumption, skilled migrants will move to A, whereas unskilled migrants will move to country B. The central idea of the Roy-Borjas model simple: the relative payoff to skills across countries determines the skill composition of the immigrant flow.

The underlying intuition that lies within this model illustrates how workers "self-select" themselves into favorable employment opportunities. Suppose that individuals

currently residing in a “source” nation are performing a cost-benefit analysis to decide if they should migrate to the U.S. “Skill” is the single factor in wage determination, and the following equations will help to determine who will move to the U.S. Roy’s model (Roy, 1951) says that workers decide where to migrate too by comparing their potential earnings at home (e.g., the source country), and in the U.S. (e.g., the host country).

Potential earnings available to a worker with an efficiency of  $s$  units is specified by:

$$w_0 = \alpha_0 + \delta_0 s$$

$$w_{US} = \alpha_{US} + \delta_{US} s$$

where  $w_0$  is the workers wage earnings in the source nation;  $w_{US}$  is the wage earnings in the U.S. Additionally,  $\alpha_0$  and  $\alpha_{US}$  represent the income levels of those who have zero skill efficiency  $s$ . The two slopes,  $\delta_0 s$  and  $\delta_{US} s$ , represents the dollar return to an additional unit of skill efficiency in the source nation and the U.S. When  $\delta_{US} s > \delta_0 s$ , the payoff to the skill efficiency unit is greater in the U.S. When  $\delta_0 s > \delta_{US} s$ , the opposite is true, the return to skill is greater in the source nation. If we assume there are no costs associated with migration to the U.S., a worker will move to the U.S. whenever American wages exceed the earnings of the source country (Roy 1951)<sup>1</sup> (Borjas 1987).

Figure 1 displays the self-selection of immigrant flow in better detail. If the rate of return to skills is greater in the host country, the immigrant flow with skills greater than  $Q_2$  will be positively selected into that country as shown in part (a). Under these circumstances the slope of the host’s dollars-skills line is steeper than that of the source country. This is referred to as the “brain drain,” meaning highly skilled labor will move

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<sup>1</sup> The model was applied to immigration by Borjas.

out of the source country in order to earn higher wages in the host country. Alternatively, negative selection occurs when the rate of return to skills is lower in the host country, where immigrant flow is negatively selected out of the host nation. In the negative selection portion of Figure 1 part (b), workers with less than  $Q_1$  skills will emigrate because they can earn a higher wage by moving to the host country.

Both Sweden and the United States are in the position where many low skilled workers move into the country to earn a higher wage than they could have received back in the source country. For the United States, much of the unskilled labor comes from Mexico, whereas in Sweden, migrants flow in from African and Middle Eastern nations. The Mexicans, African, and Middle Eastern migrants are said to positively select into the United States and Sweden. In the case of the United States and Mexico, Table 3 shows that the U.S. has a higher intercept ( $\alpha$ ), as well as a larger slope ( $\delta$ ), than that of Mexico. Under these circumstances it would be beneficial for workers of all skill ranges to migrate to the United States. Alternatively, Sweden would have a larger intercept than African nations, but the African nations could potentially have a steeper slope than Sweden. This relationship shows that low skilled laborers from African Nations would be drawn by the higher wages in Sweden. In Sweden's case, much of the skilled labor would be exported from the country to make higher wages in these African nations.

Changes in income will either increase, or decrease, the migration flow of the host and source countries. Using the U.S. as an example, Figure 2 part (a) shows that a fall in income levels decreases the dollar-skills line to  $\alpha'_{US}$ . If the slope of the return to skills of the U.S. is greater than that of the source country, the skill threshold shifts to the right to

$S'_p$ . Positive selection will still occur for workers who have skill levels greater than  $S'_p$ . On the other hand, if the return to skills is greater in the source nation, as seen in Figure 2 part (b), the skill threshold slips back to  $S'_n$ . This will decrease the amount of migration to the U.S., and only those with skill levels below  $S'_n$  will move to that nation.

### **Theoretical background**

The characteristics of migration flows are defined by both push and pull factors. However, when focusing on the effects on the receiving country, pull factors play a crucial role. The volume of immigration and its consequences on the host country depends on such features as the state of the economy, the structure of the labor market, immigration policies, and the size of the welfare state and social protection provisions in the receiving country. Generous welfare states are often referred to as welfare magnets. This means that the likely net beneficiaries of the welfare state self-select into generous states, according to the Roy-Borjas model (Nannestad 2007).

An immigrant population can be very heterogeneous on several dimensions. With regards to labor market integration and social protection, distinctions must be made between low-skilled immigrants, and highly educated groups. Whether the incoming skill is complementary or competing with natives must also be taken into account. A further distinction is between legal and illegal immigration, as the latter mainly affects the “shadow” or “black” economy. Policy and geography is key in defining the primary types of immigrants a country attracts, and these characteristics obviously vary between our selected regions. The primary reason for immigration into the EU states, and by extension

the Scandinavian countries, is not labor-related but humanitarian (Begg et al 2008: 103-105), and the regulations are increasingly strict. The US faces a more diverse immigrant population, and illegal immigration is more common.

The literature on the subject is diverse. Milton Friedman once stated that free immigration is incompatible with a welfare state (as quoted in Nannestad 2007 p. 514). All developed countries have at least some minimum of immigration controls in place in today's world, and globalization is increasingly viewed as putting additional exogenous strains on national social policies.

As for effects of immigration in the economic sphere, current scholars disagree. They argue on the one hand that immigration is positive for growth, and can contribute in combating the fiscal effects of aging of the population (Begg et al 2008). On the other hand it is claimed that effects are largely negative, in the sense of downward wage pressures and unemployment, affecting in particular the low skilled end of the local labor market (e.g. Sinn 2005). While these assertions may hold true, the story as a whole is much more complex. What is not realised in many of these issues is although immigrants may put pressure on the welfare state, they also act as consumers. These immigrants may have a depressing effect on wages in some industries (i.e., those in which they disproportionately work), but would have a positive affect on wages in industries in which they disproportionately consume (depending on the elasticity of labor supply in that industry). Begg et al (2008) state that globalization impacts labor markets asymmetrically, with wage inequality a result in the US, and unemployment the result of the same trend in Europe, due to the social policy induced wage floor. Moreover,

immigrants may be viewed as an overall fiscal burden for natives and thus poses a threat to the long-term sustainability of the welfare state (Nannestad 2007), the latter particularly relevant to Scandinavia. All of this implies that the Scandinavian countries may attract a different kind of immigrant than does the US, although this distinction may be fading.

The focus of this section will be on two types of economies and societies. On the one side there is the low-tax, relatively low social protection provision capitalism of the US, and on the other we have the social democratic Scandinavian countries which have high employment, high taxes and high social spending. They differ from the rest of Europe by defying the recent trend of stagnating growth. Furthermore, the Scandinavian countries have, while remaining highly open and interdependent economies, increasingly raised the bar for accepting immigrants from outside the EU, and are primarily accepting asylum seekers. Intuitively, the effects of immigration must differ between the systems, as the economic structure, policies and composition of the immigrant population vary to such an extent across the countries. If they are “welfare magnets”, the Scandinavian countries should experience immigration that may be unfavourable to the economy compared to the US. From this follows our research questions. Does the extent of the welfare state influence the type of immigrant a country attracts? How does the nature of the immigrant population affect economic performance?

Beyond this brief background, the discussion now turns to deeper look at the relationship between immigration, the economy, and the welfare state (e.g. Roy-Borjas Model). Two key areas reviewed are the labor market and social protection. The

following section will address evidence from the US with regards to effects and issues related to immigration. The third section looks more closely at the same relationships in the more welfare oriented Scandinavian countries. Lastly, some potential policy implications are drawn up.

### **Immigration in the United States**

One emotionally debated topic in the United States is immigration. Migrants flow into the United States from every border legally, yet natives view immigration negatively. Most recently, Arizona had passed a law that aims to deter illegal aliens from settling in the state. While similar laws have met resistance across the rest of the country, 70% of Arizona voters felt it was necessary. The potential economic implications of immigration is what strikes fear in the heart of many Americans. In reality how justified are those fears?

There are those constituents that feel immigration into the United States affects the American economy adversely. These proponents tend to focus on ideas such as wage depression, “job stealing”, and the negative relationship between services received and taxes paid. Others have a more positive outlook. They see immigration as a catalyst that leads to lower pricing of goods and services, and as a supplement to total productivity.

### **Labor market effects**

The first set of implications pertains the labor market. The question is, do illegal/legal immigrants depress wages? Studies have shown with great success that migrants, generally illegal, tend to earn much less by way of wages than native workers. In particular, a study from 1995 has shown that “workers in construction, manufacturing, and other industrial divisions earned substantially less per hour than did all US production and nonsupervisory workers (\$2.66/hour versus \$4.47/hour)” (Espenshade, 1995). In addition, it was found that these generally unskilled laborers worked more than their native counterparts. It was also established that these illegal migrants make significantly less than legal migrants. Therefore, it would logically follow that those legal/illegal migrants would adversely affect the wages of native workers for who substitute. But, empirical analysis has shown that these effects tend to be rather modest, if at all noteworthy. Nannestad states, “...there is very little evidence to support the conclusion that immigration into western welfare states [U.S. included] has adversely affected...income equality goals”(Nannestad P. , 2007). He finds that natives lose 3 percent of wages as a result from a 10 percent wage by immigrants. Nevertheless, this negative effect has shown to disappear over the course of four to seven years.

It may therefore be just as safe to assume that the much higher wages enjoyed by legal immigrants over those low wages of illegal immigrants may render any wage lowering effects inconsequential. Nannestad (2007) suggests that native workers at the lowest skill levels (i.e., high school dropouts) only marginally feel wage-lowering effects due to elasticity. These effects show to be weak as well.

Moreover, there is no evidence that illegal immigrants are taking jobs from native blacks, a minority with whom these immigrants would likely be competing against (Espenshade, 1995). Intuition would suggest that the indiscernible wage effects are realized because native laborers do not explicitly compete with migrant workers for employment. A popular consensus is that migrant workers take the jobs that many Americans are unwilling to compete for. This, however, may hold truth.

### **Effects on social protection**

The discussion now turns to the impacts of migration on the American welfare state. Conventional wisdom may lead to the assumption that effects on the American welfare state are virtually non-existent in comparison to the migration effects on the European welfare state. The United States has much less to offer by way of welfare (i.e. transfer payments, healthcare, unemployment benefits), so one could posit that the net effects of illegal/legal migration would only be a fraction of those effects felt by European welfare states. Nannestad (2007) supports this idea as he states, "...the negative impacts of immigration are strongest in the most generous welfare states". The problem here is that these assumptions may be overly simplified. It is easy to make such generalizations on broad scales, but it may prove beneficial put this idea under a regional scope.

When looking at the United States as a whole, it may be easy to see that immigration has not placed much burden upon the average citizen, but regional and local effects may differ. For example, a citizen from Texas or California, how may

immigration affect them? Espenshade (1995) reports that the net effects on Texans are lower than those on Californians. The reasoning behind this is that migrants into Texas use public services much less in relation to their high tax payments, whereas Southern Californian migrants use public services much more than they pay in taxes. Age also appears to be a variable. Younger migrants tend incur fewer costs than older ones (Nannestad P. , 2007), “thus the fiscal net impact depends on which factor dominates”(Nannestad P. , 2007). Consequently, the effects of immigration should be considered as being dependent upon locale and demographics. On the whole, it appears that immigration may have shown to have some beneficial properties. Although there are some signs that migrant laborers mildly depress wages, they also help the rest of Americans enjoy lower prices for restaurant meals, produce, and construction (Davidson, 2006), while allowing these industries to grow due to a more flexible labor force (Parker, 2005).

### **Policy implications for the United States**

The direction in which U.S. policy should move is hard to characterize. In the early 20<sup>th</sup> century, the Chinese Exclusion Act was written to stop Chinese migration into the United States. It was soon realized that the motivation for foreigners to gain access to the United States was greater than the governments resolve to stop the inflow of people. Shortly thereafter, the Act was abolished. A more prudent approach may involve working with migrants who are already here. This idea was emphasized in 2005 when President Bush outlined the idea for the guest-worker program; a policy that grants work

permits to laborers already in the United States (Parker, 2005). A policy like this may seem less daunting to those migrants who fear deportation. Not only would this program encourage an increase in tax revenues, it would also motivate accountability. In other words, the U.S. government may be able to gain a better approximation of who is in the nation, which may very well lead to more accurate statistics on the effects of immigration on the country's economy. During the 1940's President Roosevelt instated the Bracero Program to import laborers from Mexico to feed the demand for manual labor in the United States. It seemed to be somewhat successful as it lasted into the 1960's, yet there were increased costs because of the need to house, feed, and provide medical care the Bracero's.

Alternatively, policy-makers could find success in penalizing employers who choose to employ illegal immigrants. It has been shown that immigrants who have evaded U.S. Border Patrol and established residence face a probability of apprehension at the rate of 1-2%(Espenshade, 1995). With the odds of detection being low, and the reason for immigration based roughly on employment, it would only be seen as logical to make the cost of illegal employment more expensive for both the employer and alien. Employers would avoid hiring those who should not be rightfully employed, and aliens would face a greater risk of detection. A policy as such may also provide the platform to potentially reduce the depression of wages at the low skill level by acting as a deterrent for "black-market" labor. Although these types of policies may not lead to social optimality in the labor market since the cost of total eradication of undocumented labor

significantly outweighs its benefits, it may direct the economy to a more tolerant concentration.

### **Immigration in the Scandinavian countries**

Compared to the US, Europeans work less, take longer vacations, retire earlier, and view job security and stability as a fundamental right. In the mixed economies of Europe, society may determine much of an individual's fortune and social equality. However, it has been observed that Europe is facing a major decline in economic growth, and its population is becoming older. The closed borders and strict immigration policies promise to make the European aging populations amid low birth rates harder to sustain (Alesina, 2006). On the other hand, not all European countries are doing worse than before. Andersen(2008) states that the core principle of these successful Nordic models is individual entitlement to public sector provisions, combined with collective financing via taxes. They have managed to combine high income levels come together with a fairly equal income distribution.

The Scandinavian countries distinguished themselves during the post-war period by a particular kind of social and economic model. The small and peripheral countries were late developers, initially industrialized on the basis of rich supplies of raw materials, but early developers of more advanced, universal and ambitious welfare programs (Benner, 2003). The countries are all characterized by high growth, a rapid introduction of new technologies, while maintaining an advanced social protection and regulated labor markets. Their employment and welfare model is based on tax-financed social services,

generous social insurances, organized labor markets with limited wage and employment flexibility, and a commitment to full employment. Even considering differences between the Scandinavian countries, as a collective they appear to be successful in their adaptation to the demands and restrictions of the global, knowledge-based economy, more than the larger European countries (Benner, 2003). The Scandinavian welfare state thus appears to be reliant on immigration that is high skilled and prepared to pay taxes.

The Scandinavian countries are also affected by globalization, and maintaining the current levels of health care benefits, pensions, social benefits, education, and unemployment will continue to be a challenge. The current lifetime income security will be threatened. Benner (2003) argues that the development of Scandinavian countries confirm the assertion that countries based on ‘social democratic corporatism’ succeed in a globalized economy because they are able to implement wage-restraint programs, deliver social stability even with volatile markets, and provide the economy with collective goods. How does immigration fit into this picture?

### **Labor market effects in Scandinavian Countries**

Today Western Europe welfare states find themselves in a paradoxical situation. Parts of working life are in need of labor that is difficult to find. Coincidentally, migrants seeking employment are often joined by family members (Brochmann, 2008). The government is confronted with a mismatch between supply of and demand for immigrants. The receiving countries do not get the labor they want, while many of those who actually come cannot be incorporated productively. The social system is also

affected by the New Residence Directive, which was adopted by the European Union in 2004. This directive makes it harder for European countries to decline or end the residence of European citizens and awards a permanent right of residence after five years in another country (Odom & Deis, 2007). As discussed before, immigration seems to be an important factor that affects the social system. Scandinavian countries are experiencing increasing immigration from developing countries. Roughly 55 percent of these immigrants do not have training or experience, which makes them ill equipped for the workforce (Segal, Elliott and Mayadas 2009). Because of this, the social system must take responsibility for the training and education of these individuals in order for them to become contributing members of the society (Odom & Deis, 2007). This is exactly the way in which Scandinavian countries secure employment as discussed before. However, it can be argued that these importing countries gain the advantages of adult labor without paying the costs of raising children from birth, through entry into the labor force, which in turn represents a significant allotment of social savings (Neal 1972). It is difficult for a country to control the stream of immigrants, and policies directed towards those already in the country even more so. For example the Danes implemented some control over culturally sensitive areas such as prearranged marriages, but were accused of racism for implementing controls in that area (Odom & Deis, 2007).

Nannestad (2007) describes the main conclusion of a working paper by Chand and Paldam, where the economic effects of immigration into three types of host countries are compared. Although the paper is based on assumptions rather than analytic research, it gives us insight in the effects of immigration. The analysis shows that in a guest worker

society of the ‘Dubai’ type immigrants can indeed be mutually beneficial for natives and immigrants. The same may hold, but to a lesser degree, in welfare state such as the US. In welfare states of the ‘Scandinavian’ type, immigrants gain from immigration, while natives lose. Once an immigrant is accepted in a Scandinavian country, he is eligible for social benefits just like a native citizen. The benefits are made to equalize incomes, so they are highest at the lower end of the income scale where the immigrants are likely to be for some time. This effect is confirmed by empirical research as described by Nannestad (2007) where the net fiscal impact of immigrants has been found negative since the 1990s for the Nordic welfare states.

### **Effects on social protection in Scandinavian Countries**

In short, the Scandinavian model offers a comprehensive social welfare system and labor market policies that ensure health care to all individuals, income equality and very low unemployment (Odom & Deis, 2007). From the Roy-Borjas model one should expect to find two trends in immigration from less developed countries into European welfare states (Nannestad P. , 2007). Firstly, skill levels among these immigrants should tend to be even lower than among immigrants into the US, because the dispersion of the earnings distributions in Europe welfare states tends to be smaller than the US. Secondly, European welfare states with the most generous welfare systems, like the Scandinavian welfare states, should act as welfare magnets.

Following the theory of the Roy-Borjas model, one should thus expect that an immigrant would choose the country where it will receive most welfare benefits. Though, immigration policy may offset the welfare magnet effect. Since 1973 most European countries have had restrictive immigration policies, leaving open only two gateways for legal entry: family reunification and the asylum system (Nannestad P. , 2007). Immigrants that use the family reunification argument for legal entry are often constrained in their choice of the destination country where their relative possesses residence. Asylum seekers are not formally constrained, but even when they have a personal preference for applying for asylum, they can be constrained due to logistics. This is caused by a regulation that states one should apply for asylum in the first secure country they arrive. Secondly, they might not use a welfare optimization argument selecting a country, but they would rather choose to maximize their chance of being admitted.

At first glance, the effects of immigration appear to be less negative in the US than in Scandinavia, as predicted by a host of theories, and conforming to intuition. Similarities include the fact that even if skilled immigrants may be preferred, the main influx is of low-skilled workers. Policy implications, as far as the trend of increasingly strict regulation towards immigration continues, will focus on addressing the immigrant population already in the country. As an example, education is a positive force in the process of integration, and more skilled immigrants may be net contributors instead of benefiterers of the welfare state.

To attempt a short answer to the research question, it would be a yes, although sources present variable evidence. Effects appear to differ. The extent of the welfare state, with its reliance on high employment and collective financing seems to be the main culprit of the adverse effect. Regulation of immigration is used to offset some negative effects. Other possible routes to take in order to attract the relevant immigrant, is systems based on points and merit, but this is highly contentious in the Scandinavian countries, priding themselves on an egalitarian and humanitarian society.

In the case of the US, the issue of illegal immigration is particularly central, shaping the debates, effects and policies. The problems with illegal immigration may contribute in deterring natives from welcoming immigrants in the economy. However, the picture looks a bit brighter on the other side of the Atlantic. The theory that immigration depresses wages is obviously affected by the legal/illegal immigrant divide, but does not hold on the whole, and in some areas there is even a positive effect. The effect is seemingly not even present at a low level, and there is little evidence of immigrants taking jobs from natives, as work preferences are fairly complementary.

Nonetheless, it is important to note that the effects depend on geographical and demographic factors, a natural aspect of studying such a large and diverse country. In fact, this diversity itself represents an interesting discussion point. The sheer homogeneity of the Scandinavian societies and labor markets may be a crucial factor in the presence of the welfare state from the onset. This entails that immigration poses a threat in the sense of diversifying society.

### **3. Impact of Drug Policy on the United States and Portugal**

*“I'm in favor of legalizing drugs. According to my values system, if people want to kill themselves, they have every right to do so. Most of the harm that comes from drugs is because they are illegal.”*

*Milton Friedman*

The burgeoning debate over drug policy in the United States has flourished in recent years in response to the negative elements that have surfaced in an environment of illicit drug prohibition. To some, prohibition has once again failed. To others, the value of this rhetoric is on the rise in the “war” on drugs. One side of the argument feels that this war on drugs is capable of being won. While others propose that prohibition is what initiated this “war”. Today, U.S. drug policy is the model for Global drug policy, and sadly so. Portugal, however, has taken progressive and aggressive steps towards dampening the problems that arise from drugs in prohibitory environment. Since 2001, Portugal has taken a logical and economic approach to addressing their own drug problems by decriminalizing all illicit drugs. What must be noted is that decriminalization has become increasingly more popular amongst citizens, and politicians, in the country since its initiation, with the exception coming from the far-right conservative politicians (Greenwald, 2009). Although it is understood that the policy framework developed by the Portuguese is in need of fine-tuning to enhance efficiency, it has by and large laid to rest the fears of those who tried to forecast a doomsday scenario that “should” have resulted from decriminalization. This section takes advantage of the empirical findings resulting from the decriminalization of illicit drugs in Portugal, and will be used to create a template in which American drug policy should follow.

## **Theoretical Background**

This section argues for the decriminalization of illicit drugs in the United States. It maintains that there are no market failures that could justify prohibition. From an economic standpoint, prohibition is a policy that saw little if any effectiveness with alcohol earlier in the 20<sup>th</sup> century, and is overlaying idea in which many economists base their opinion in favor of the decriminalization of illicit drugs. To further my opinion on decriminalization I will discuss some of the troubles that stem from prohibition, namely; crime (violent), cartelization, property crime, poisonings and overdoses, disease, and civil liberty violation.

## **Violent Crime Precipitated by Prohibition and Cartelization**

From past experience with the prohibition of alcohol, it is apparent that what may be driving the high levels of crimes in the United States, and violent crimes in particular, is the prohibition of drugs. The United States ranks first in the world in per capita incarceration, with less than 5 percent of the world's population, but almost 25 percent of the world's prisoners. In 1980, the number of prisoners in jail as a result of a drug violation was 50,000, whereas today there are almost 500,000 prisoners, an increase of almost 900 percent! (Nadelmann, 2007). There is a driving reason behind the evolving crime rate in the United States. By prohibiting drugs, vast profits are left on the table as business incentives for cartels and dealers. And, in a market where access to the legal and

judicial system is denied because it is illegal, the marginal benefit to using violence to resolve arguments increase greatly. Furthermore, the added cost to violent acts decreases since certain “victims” of violent crimes will tend not to seek legal assistance when the act occurred in the midst of an illicit transaction with drugs. With that, it is generally believed that since suppliers tend to hide their operations from the law, it then becomes easier for cartels to materialize. And, since the marginal cost to imposing severe punishment through use of violence tends to be lower, there is an added repeat interaction between the cartel and those further down the chain, i.e. street level dealers and buyers. (Miron & Zwiebel, 1995). Following this idea, those who are looking to enter the illicit drug market and intend on going into direct competition with established cartels may face violence themselves. In markets over legal goods, the “cartels” would be facing lost sales in the pricing battle with smaller companies. But, in these illegal markets, it is those who use the most violence who tend to win. Examples of this can be seen throughout South America and Mexico, where violence is a common occurrence and is frequently attributed to interaction with cartels. According to Tomas Kellner and Francesco Pipitone, 6,587 murders occurred in Mexico in 2009 as a result of drug activity, up from 5,207 in 2008, an increase of nearly 27 percent.

In addition to violence on the cartel level, violence at the street level will also rise with prohibition. Local dealers and users will find that the marginal cost associated with the use of violence attributed to illicit drug use/sales is lower than the benefit gained from the money received from drug sales, or the high achieved through drug use. This theory can be demonstrated by looking at the rising murder rates in the United States that had

been seen throughout the prohibition. As noted by Miron and Zwiebel, murder rates rose, both after the adoption of drug and alcohol prohibition laws in multiple states, as well as during World War I and well into the 1920's, where the prohibition was accepted on national scale and was enforced increasingly (Miron & Zwiebel, 1995). It should also be noted that these rates fell after the repeal of prohibition, yet they again rose in the late 1960's and remained high until the 1980's, which coincided with the crackdown on drugs through law enforcement. Innocent citizens may also feel the repercussions of prohibition. In environments where violent crime due to illicit drug activity is rather rampant, those not involved may arm themselves with firearms, etc. In this instance, it is entirely plausible that there could be accidental discharge of the firearm injuring other innocent people. In either case, this would mean that firearms would be more widely available for both legal and illegal motives. Violent acts associated with drugs, more or less, appear to tell the story that prohibition is accountable for a large portion of drug related violence. (Goldstien, Brownstein, Ryan, & Belluci, 1989) In New York City, March to October 1989, there were 414 murders. Roughly half of those murders were classified by authorities as drug related. Only 17 percent of those drug related murders came from a state of mind influenced by a controlled substance. The other 83 percent were of "economic compulsive," or "systematic," in nature. That is, someone was killed in the buying or selling of illicit drugs (economic compulsive), or someone was killed over drug territory (systematic) (Miron & Zwiebel, 1995).

### **Non-violent Crime**

Aside from the violent crimes that occur due to prohibition, there are other types of crimes that can be associated with illicit drugs. These infractions are non-violent in nature, but do add a considerable cost to society every year. Miron and Zwiebel (1995) make reference to this idea, and maintain that theft and prostitution are two of the most common crimes related to drug use. At first glance, one may come to the conclusion that individuals take part in these acts because of the psycho-pharmacologic effects induced by the drugs themselves, but it is more likely the case that these individuals are partaking in these acts to support their drug use. The rates at which these crimes are committed are likely intensified by the economic consequences that result from prohibition. It is likely that prohibition will continue to raise the price of illicit drugs while raising the rate at which these offenses are committed by users who cannot support their habit through a normal income. This idea is supported by the work of Silverman and Spruill (1977) who report that there is a positive correlation in increases in the price of heroin with these sort of non-violent infractions of the law (Silverman & Spruill, 1977). It has also been well documented that by increasing the amount law enforcement resources towards implementing prohibition, these sorts of crimes associated with income creation rise proportionally (Benson, Iljoong, Rasmussen, & Zuehlke, 1992). It is a well-accepted fact that the United States is far from winning the “war on drugs.” What seems to fall upon deaf ears is the fact that every time a group of border patrol officers seize a shipment of illicit drugs, the price of that illicit drug increases, theoretically. Over time, this theory becomes fact, and both violent and non-violent crimes start to increase again.

## **Disease and Overdose**

As prohibition persists, so does disease from drug abuse. Diseases that can stem from drug use are a larger list than one might imagine. HIV/AIDS is one of the most recognized diseases contracted from drug abuse. But, what many fail to recognize is that other diseases and afflictions can surface with relative frequency as well. Of those diseases are: hepatitis, cardiovascular disease, stroke, cancer, and lung disease, to name a few. In a study done by the National Institute on Drug Abuse (NIDA) in 2004, researchers found that 45 percent of abusers without primary care suffered from chronic illness, while 80 percent sustained previous hospitalization due to complications associated with their drug use (De Alba, Samet, & Saitz, 2004). There are some countries, however, that are recognizing the need for harm-reducing policies or programs such as needle-exchanges. Among these leaders in harm reduction are China, Indonesia, Malaysia, and even Iran, where in 2005 the Ministry of Justice issued a *fatwa* declaring methadone maintenance and syringe-exchange programs complementary to Islamic Law (Nadelmann, 2007). Although the availability of needles may not directly indicate prohibition, proponents of the banning of illicit drug tend to support the restriction of availability of needles. There is, however, data that indicates HIV infection rates are much smaller in areas that provide greater accessibility to clean syringes (Gostin, 1991).

In addition to the many diseases that can be contracted through drug use in a prohibited state, overdoses are likely to rise in an environment that fosters drug manufacturing without regulation or quality standards. This would be the case because it would be impossible for a buyer to object to the quality of a product without implicating

themselves. Although their process may be mildly flawed, Miron and Zwiebel have displayed this idea with their research that showed deaths due to alcoholism rose during alcohol prohibition (Miron & Zwiebel, Alcohol Consumption During Prohibition, May). Without the worry of regulation, manufacturers and distributors will only slightly rely on reputation for repeat service to buyers/users. For this reason, overdoses and poisonings emanating from illicit drugs of sub-par quality will likely continue to rise in a prohibition state.

### **Data Research**

In my search to find a correlation between substance prohibition and the increase in crime, it was quickly understood that finding data to substantiate this claim is quite a surmountable task. The problem lies within finding a proxy for, in the preferable case, alcohol during the prohibition. Alcohol was prohibited by the 18<sup>th</sup> Amendment on January the 16<sup>th</sup>, 1919. It was put into effect the very next day. Since the use of alcohol was banned, statistics on consumption became very difficult to quantify. There are, however, a few tools that may be used to gain some insight into the usage of alcohol during the period of prohibition. Drunkenness arrests are an agent that can be quantifiable through legal records, and was used by Angela Dills (Dills, Jacobson, & Miron, 2005) in her paper on the effect of the Prohibition on alcohol consumption. Her findings are rather interesting. According to her data, Dills finds that Prohibition plays an important role during its inception, but in the long term it has nearly zero effect on drunkenness arrests. Her data is preferable to cirrhosis data because data from deaths

occurring from cirrhosis are subject to a lag effect. Furthermore, the liver is capable of recuperating when there is low, or no alcohol consumption, creating a decrease in deaths due to the disease. Her data reveals that in the years covered by Prohibition, cities that were covered in her sample displayed a fall in drunkenness arrests of a mere 10-30% (Dills, Jacobson, & Miron, 2005). Dills and Miron's data on cirrhosis deaths showed a decrease of 10-20%. (Dills & Miron, 2004) In my opinion, the conclusion that the drop in deaths due to cirrhosis, which was of a smaller magnitude than the decrease in drunkenness arrests, is more intriguing than the results stemming from the arrests data alone. Intuition would commonly suggest that deaths due to cirrhosis should fall at a much higher rate due to the nature of the disease. The fact that the death rate didn't fall at a higher rate leads me to some speculative conclusions. We've already maintained that prohibition decreases the supply of illicit substances, and with this assumption and our knowledge of the nature of cirrhosis, one might come to the conclusion that the percentage change in the amount of deaths due to cirrhosis would be rather large. Intuition should suggest that with even a modest drop in consumption due to prohibition, there should be an even larger drop in cirrhosis deaths. This is because with less access to alcohol, there are some users who may walk away from the substance, or at least find trouble accessing it for longer periods of time. Under this assumption, it should be safe to suggest that there would be a greater decrease in deaths due to cirrhosis merely because of the liver's ability to recuperate after periods of little or no alcohol. While this may be implausible, I feel that there is an even simpler reason for why the death rate due to cirrhosis did not fall as much. My contention is that alcohol was likely manufactured

to contain a higher percentage of ethanol, the “drug” that gives alcohol its psychoactive characteristics. And the reason that alcohol likely was stronger is simple; a bottle of whiskey is much easier to conceal than a case of beer. Bootlegging spirits is also a much less complicated operation to conceal, and would produce more alcohol on par with greater efficiency, than would, say, underground brewery or winery. There is fact behind this conjecture. “Moonshiner’s” or “bootlegger’s” became prevalent throughout the United States during the time of the prohibition, and who were known for their high-test alcohol. On occasion, there was a possibility of accidental poisoning from methanol intake, a dangerous and toxic byproduct that market alcohol can potentially contain in a black market with no regulation.

I chose to look at the correlation between murder rates and alcohol consumption. There is a popular theory that when substances are restricted homicide rates tend to spike. Although we do not have data for alcohol consumption during the years of the prohibition, we can still tease interpretations out of simple regressions of the two included variables. But first, I will cover the data that I’ve compiled in Figure 3.

In 1919, the U.S. Senate passed the Volstead Act, otherwise known as the National Prohibition Act. It is clear in the data that at the time of the passing of the Volstead act, homicide rates were already following a steady rise. The reason there wasn’t an abrupt spike is for the known fact that states across the country were already passing legislation prohibiting the sale and consumption of alcohol. By looking at the graph, this can be clearly seen as murder rates are rising in response to the development of a new black market. Once Prohibition is put into full effect across the country in 1919,

there is a rather significant spike in the murder rate, which rises from 6.8 in 1920, to 8.1 homicides per 100,000 in 1921. During Prohibition, you can see that homicide rates peaked at 9.7 murders per 100,000. In 1933, President Roosevelt signs the Cullen-Harrison Act that nullifies the Volstead Act, and legalizes the manufacture, sale, and distribution of alcohol in the U.S. From there, there is a remarkable fall in the murder rate that reaches a base of 4.5 homicides per 100,000 in 1945. There is short 5-year period of increased homicide rates between the two valleys of 1945 and 1951 that I find hard to interpret. The timing of this peculiarity coincides with the ending of WWII, but I can only interpret this as being an anomaly because murder rates remain consistently low for the next few years until they begin to rise again in 1957. From then on, the path follows a steep rise until 1975. I interpret this as the population's reaction to the Narcotics Control Act of 1956, which was put in place to allot penalties with intensified severity for illicit drug violations by increasing the maximum and minimum years to be served, as well as imposing a hike on fines. What I found interesting in the data is that not only do the amount of homicides increase as restrictions magnify, which runs concurrent with my theory, alcohol consumption also rises and stays high until 1985. What this tells me is that there is a substitution effect that takes place when access to one item becomes inherently more difficult than access to a substitute. It is not to say that heroin is a fair substitute for alcohol, but there are those recreational users of drugs that are, for lack of a better definition, "less dangerous," and may find alcohol to be a fair substitute. Although they may not be perfect substitutes, the substitutability is great enough to show a modest increase in alcohol consumed when penalties associated with

illicit drugs are increased. It should also be mentioned that the Narcotics Control Act was not a solitary action taken by the government to curb the use, importation, and manufacturing of illicit drugs, there was also the Drug Abuse Control Amendments of 1965, enacted to suppress the distribution of psychoactive, hallucinogenic, depressant, and stimulant drugs. The Comprehensive Drug Abuse and (Prevention) Control Act of 1970 was instated to hold the pharmaceutical industry accountable for the security and record keeping of specific manufactured narcotics. Further restrictive acts are the Methadone Control Act (1973), the Heroin Trafficking Act, and the creation of the Drug Enforcement Administration (DEA) in 1973. From 1969 all the way up until the mid-1990's, the homicide rate stayed above 8 homicides per 100,000, the first time over the last 100 years, and the only time since the Prohibition era. Furthermore, from 1970-1975, some states began raise the legal age of alcohol consumption to 21 years. This data seems to add value to my argument. That is, massive amounts of profits are left on the table that are nearly free to those who wish to start there own criminal enterprise, and who also feel that the marginal benefit to using violence outweighs the marginal cost of the penalties received from being caught.

The next piece of data that deserves attention appears on the consumption line in 1984. Consumption takes a hit because of the National Minimum Drinking Age Act, which would require the drinking age to be increased from 18 to 21. What is equally interesting is that consumption rises quickly back to pre-1984 levels. This would appear to substantiate Miron's data that claims alcohol consumption during the prohibition

would nearly reach pre-prohibition levels (Miron & Zwiebel, Alcohol Consumption During Prohibition, May).

## **Data Analysis**

To test the hypothesis that policies restricting illicit substances can lead to a higher murder rate, I have compiled a data set containing relevant data from the years 1910-2007. Data on homicide rates for these time periods was available at the Bureau of Justice statistics, and it provides a per year count of homicides per 100,000 people. Unemployment rates were retrieved from Historical Statistics of the United States, and were added to see if they had any added effect to murder rates. Dummy variables for all policies, which would have had restricted supply of illicit substances further, were added into the regression to account for any interaction that could potentially occur from more restrictive illicit substance policy. The empirical specifications estimated are put in the following

## **Results**

Table 1 takes the initial step in regression analysis by presenting log regressions of the homicide rate on year (*year*), unemployment rates (*u*), a lagged homicide rate variable ( $hr_{t-1}$ ), and dummy variables created for the 18<sup>th</sup> Amendment (*proh*), state level prohibition (*stproh*), Narcotic Control Act (*nca*), Heroine Trafficking Act (*heroine*), Drug Abuse Control Act (*ada*), and the National Minimum Drinking Age Act (*nmda*), along

with a constant ( $\alpha$ ) and error term ( $\sigma$ ). The empirical specifications estimated are denoted in a predictive regression of the form:

$$hr_t = \alpha + \beta_0 hr_{t-1} + \beta_1 year + \beta_2 u + \beta_3 proh + \beta_4 stproh + \beta_5 nca + \beta_6 heroine + \beta_7 ada + \beta_8 nmda + \sigma_t$$

Table 2 is the same regression as the first only in log form shown in the following equation:

$$\log hr_t = \alpha + \beta_0 hr_{t-1} + \beta_1 year + \beta_2 u + \beta_3 proh + \beta_4 stproh + \beta_5 nca + \beta_6 heroine + \beta_7 ada + \beta_8 nmda + \sigma_t$$

The results of both tables provide mixed evidence on whether policy meant to restrict the supply of illicit substances increases the murder rate. The data shows that the effect of restriction through policy is only significant with the Narcotic Control Act. The unemployment rates are also shown to have no statistical significance. The 18<sup>th</sup> Amendment was only marginally significant.

In order to detect the presence of autocorrelation between values that are separated from each other with a time lag, the Prais-Winsten was employed in the regression analysis (Table 3). The Prais-Winsten regression should give a more precise estimate of the variables by developing a bounds test for the null hypothesis that the error terms are not auto-correlated. For a regression with 96 observations, the bounds would

be set between 1.44 and 1.9. The Durbin-Watson statistic has an initial value of 1.6, which falls into the region of indecision. In Prais-Winsten regression the coefficient remains significant, but increases to .7 for the Narcotic Control Act (*nca*) variable, which implies a roughly 10 percent increase in the murder rate.

### **Interpretation**

These results are not supportive of the hypothesis that policies that restrict the supply of illicit-substances that would have a positive effect on the murder rate. The results suggest a few things. It tells us that the Narcotics Control Act of 1956 had the biggest effect on the murder rate. Since this policy has shown some effect on estimation, adding time lags to the policy variables may increase their significance, as oftentimes there is a lag between when a policy is enacted, and when it starts to show results.

### **Further Research**

It's not until 1993 that the homicide rate plunges and reaches a new table. No substantial changes in policy had taken place since the late 1980's, so there is much left to be explained. After doing much research, I chose to take a rather non-traditional look at the data by soliciting information from a source of illicit drug distribution in the 1980's and 1990's. His name is "Freeway" Ricky Ross. Ross was a drug trafficker during the 1980's and 1990's, and he recently did an interview with National Public Radio. He had talked on some topics that most researchers would neglect to incorporate into their

analysis. It's not for lack of intellect that these researchers overlook these ideas; it's simply for the fact that they have never seen the inner workings of a drug enterprise. Admittedly, Ricky Ross does not originate from an academic background, but his insight forces additional context to the topic, and because of that I feel his voice deserves some consideration.

Now, most economists would argue that prices for outlawed goods rise because of a risk premium. Ross's contends that this is not necessarily true. He insists that many of the dealers and distributors that he dealt with did not demand these risk premiums, and his reason was that life was hard in the neighborhood he grew up in, and whether or not an individual pushed drugs, most did not expect to live past their 20's. This state of mind may not be confined to Los Angeles where Ross conducted his business. In fact, I would contend that the 20-plus-year period where the murder rates stayed above 8 murders per 100,000 might have added to this train of thought amongst those in the drug trade throughout the country, and could have potentially driven prices down slightly. Miron has found that drugs such as heroin and cocaine are substantially more expensive than they would be in a legal market, but are considerably cheaper than analysis would suggest (Miron J. A., *The Effect of Drug Prohibition on Drug Prices: Evidence from the Markets for Cocaine and Heroin*, 2003). It would take research beyond the scope of this paper, but it is not out of the realm of possibility that the acceptance of the reality of doing business in a black market may potentially be a contributing factor in the lower than expected prices of illicit drugs, and ultimately, a decline in the murder rate. However, there are limitations to this theory. Lower prices, albeit higher than legal

prices, in such a dysfunctional environment may create even greater competition amongst those directly and indirectly involved in the drug cartel hierarchy. Increased competition, paired with a continued positive marginal benefit to violence, may create an environment of even more violence. This, however, is not what is reflected in the data. I am fully aware that the mindsets of inner city drug dealers, and the potential corresponding effects on drug prices, could not completely capture the fall in homicide rates in the 1990's to today, but I believe it is possible that it may account for a small portion. Levitt offers a list of potential reason why the murder rate declined abruptly in the beginning of the 1990's. His contention is that demand for crack cocaine decreased greatly from its high demand past, and can explain 15 percent of the decrease in crime during the decade (Levitt, 2004). It should also be noted that Cork used city-level data to find that sharp increases in crack-cocaine arrests transpire concurrently with equally stark surges juvenile gun homicides (Cork, 1995). Further analysis of latent proxies must be compulsory.

### **Portugal's Drug Decriminalization**

On July 1, 2001, Portugal established a rather dramatic policy on drugs that may set the new standard for drug policy across the globe. Portugal did not shift towards more draconian principles, like that of some Asian and Muslim nations that put offenders away for prodigious sums of time, or even executes them. Nor did they spend millions upon millions of Euros attempting to shut down manufacturers and distributors of drugs in the same fashion as the United States. Alternatively, the government boldly chose a policy framework focused on decriminalization of all drugs. By decriminalization, the

Portuguese government is vocalizing that the possession, purchase, and the utilization of any and all drugs is no longer considered to be a criminal offense, or a matter for the criminal justice system. This means that only noncriminal sanctions will be appropriated, and will be treated solely as an administrative offense. When necessary, appropriations are in the form of light fines, or if the “offender” becomes habitual, there is a possibility for treatment requirements. In Article 2(1) of the statute, the basic framework is laid for the policy as it states:

“The consumption, acquisition, and possession for one’s own consumption of plants, substances or preparations listed in the tables referred to in the preceding article *constitute an administrative offence.*” (Portuguese Legislation in English, 2010)

The table that is referenced circumscribes narcotics and psychotropic substances that were formerly criminalized. It is important to point out that they also comment on *one’s own consumption*, which is to be interpreted as an amount “not exceeding the quantity required for an average individual consumption during a period of 10 days.” This is important because trafficking still remains criminalized. While it obviously does not ban drugs, it certainly limits its availability. But this fact does not inhibit the effectiveness of the policy, as we shall see shortly.

Where someone is “caught” offending, penalties are limited to small fines, or alternatively, to non-monetary citations. There is also a scale to which penalties may be issued. First time offenders may be issued a warning, whereas repeat offenders may face a range of penalties from a oral warning to a small fine of usually 25 Euros. When the Dissuasion Commissions come across a repeat offender who shows signs of addiction,

they may suspend any penalties under the condition that the offender pursues treatment. The Commissions also have the ability to suspend proceedings of fines for other non-addicted offenders contingent on the circumstance that there is no subsequent offence under an allotted period of time. Further, minors who are cited for infraction face the same process, but are provided legal council to work on their behalf. Distributing drugs to minors, however, is still classified as a criminal offence, and can carry a prison sentence between 4 and 12 years.

By decriminalizing all drugs across the board, and treating instances as administrative offences, the stigma that is carried with drug use begins to dissolve. Hughes and Stevens (2009) describe police work as a supplement to the countries goal of reducing drug use in a fashion that fosters the reduction of ignominy that has been carried by users during drug prohibition:

“The law enforcement sector was seen as supportive of the reform, particularly because they perceived decriminalization and referral to education and treatment as offering a better response to drug users than under the previous legislative approach. Key information asserted law enforcement have embraced the more preventative role for drug users.”  
(Hughes & Stevens, 2007)

Greenwald (2009) goes into this in more detail by explaining that Dissuasion Commissions go out of their way to take any convictions of guilt out of drug usage, emphasize health and treatment, and proceed through the process in an air of equivalence where Commission members dress informally and sit at the same level as the alleged offenders.

What the Portuguese are doing by way of policy appears to be working. Although, before 2001, and leading up to the decision to enact said policies, some members of the Popular party were concerned that drug usage would escalate and introduce drug tourism into the country. However, none of this happened. Approximately 95 percent of those cited for offences are of Portuguese residence (Greenwald, 2009). In the end, however, Greenwald (2009) notes that these officials adopted decriminalization on the grounds that it would reduce drug related problems, and would not be introduced as a “concession to the inevitability of drug use,” but rather as an effect governmental tool to curtail addiction and associated evils of illicit drugs.

### **Effects of Decriminalization in Portugal**

Since the inception of decriminalization in 2001, Portugal has not run rampant with addicts and dealers as some speculated, rather, the country itself has become somewhat healthier due to it. Greenwald (2009) documents this outcome with data thoroughly in his paper. As you can see in Figure 4, prevalence of drug use in middle-school child dropped in every category accounted for over the five-year period between 2001 and 2006. Equally impressive is the fact that drug use amongst cohorts stays below 2001 levels until you reach the 20-24 year old age range where usage increases by a modest 5 percent (Greenwald, 2009). I think the increase in this particular cohort can be best described as a “coming out party.” Essentially, this group was in the critical age bracket whose members were likely to already have had some experience, and began pushing the cohort effect onto others within their age range. I would gather that policy

has begun to take away the seductiveness of drug use, and those who will eventually will be the next to enter the 20-24 year old bracket will likely have a lower lifetime prevalence to drug use simply for the fact that this measure was lower for them in their middle school years than it was for the 20-24 year olds during their middle school years.

Now that we have covered the reduction of prevalence rates, we will continue by addressing effects on health. Figure 5 shows that drug related deaths have decreased overall, most notably in the opiate category. Greenwald (2009) notes that the amount of toxicological exams has increased every year since 2002, but positive tests for drug related deaths decreased significantly for every prohibited substance. On the surface this would appear to tell the story that individuals are taking part in the treatment programs. As it turns out, many addicts are taking advantage of the programs that are now being offered to them. The Portuguese government reported that the amount of people in treatment suggested by the Commissions skyrocketed from 6,040 in 1999, to 14,877 in 2003. This resulted in an increase of 147 percent of those pursuing treatment, and can be directly attributed to policy change. Furthermore, Greenwald's (2009) research shows that most EU states have drug usage rates on the order of three to four times than that of Portugal after the 2001 policy change. It is likely because funding, and the willingness of individuals to partake in offered treatment programs, has greatly increased.

It would appear that Portugal has taken a calculated risk, and has seen great success. The results run opposite of countries with stringent criminalization regimes that see high rates of crime, drug related death, and high usage rates. The most important aspect of this type of policy is that it gives constituents freedom from fear of prosecution,

and encouragement in the direction of treatment and better health. It is safe to say that the swing in resource allocation from prosecution to treatment has been quite effective.

### **Policy Implications for the United States**

Any economist will tell you that it is impossible to take what one has done in country A, and apply that idea to country B, and then expect to have identical results. History has shown that the world is not a sterile laboratory for economic testing. But, I feel that the underlying fundamentals concerning drug policy remain fairly consistent across the board. Essentially, all participants in the black market for drugs are following the same ideas. Dealers and distributors want the overwhelming profit left on the table by criminalization, and users want the high they get from illicit drugs. I am of the personal opinion that no amount of money can be thrown at the problem. Intentions of both dealers and users need to be addressed. Taking away profits eradicates the dealers, while dissolving the stigma related to drug use brings addicts piece of mind, allowing them to seek help when they likely would not under a prohibition regime. It is projected that by decriminalizing illicit drugs the United States could face a \$76.8 billion a year into the U.S. economy. \$44.1 billion through savings on law enforcement, and at least \$32.7 billion in tax revenues from regulated sales (Debusmann 2008). This number, I believe, would eventually decrease because, as seen in Portugal, the amount of users decreased greatly, which in turn would reduce revenues from taxation of drugs.

For the United States to be successful in this endeavor, there are a few issues that would need to be addressed. First, I believe there is need for a greater effort to be put

into education of juvenile on the inherent dangers of drug use. Studies have shown that high school students and younger are very susceptible to drug use via their peers. So, it would be wise to take this into consideration. Strict laws forbidding the sale and distribution to minors should be put into place and carry heavy fines with an equally taxing prison sentence. Obviously, as our history has shown, these acts will still occur but will potentially transpire at a discounted rate. Furthermore, Portugal has seen success with this type of reform directed towards underage use, and has seen rather dramatic success.

Secondly, access to rehabilitation should be paid for through revenues received from drug taxation. Again, this is an idea that has already been put in place by the Portuguese, but within it hides the fundamental reason why this element works. It is because users are no longer looked at as criminals, but as people who are in need of help just as much as someone struggling with any other type of psychological disease. Once addicts feel comfortable seeking treatment without fear of prosecution, there will be a positive flow into facilities of those searching for help.

Third, offer clean needle exchanges. Gostin (1991) has shown that countries with facilities that offer this kind of service have lower rates of HIV/AIDS infections.

Fourth, give repeat offenders the opportunity to attend treatment programs. An addendum to the Portuguese policy that I would suggest is to have outreach program that pursue addicts. This would further the thought that addicts are no longer criminals, but a part of society that need help, and are cared for by their community. Freedom from

addiction should be celebrated and seen as a community conquest in the pursuit of a healthier population.

Finally, one thing that Portugal did not add to their policy is a legal contribution of harvests to drug distribution centers from independent growers/manufacturers. This would further take away profits from cartels via an increase in competition. These new “manufacturers” would also have to be closely monitored/regulated so that smaller black markets do not arise. Overall, I think the policy put in place by Portugal is a very good model, and should be mimicked by the U.S. as closely as possible.

There are, however, limitations to this argument. With decreased price, and greater access to drugs, there is potential for increases in addiction. Although this is not what was observed in Portugal, it is one of the factors that could remain unknown until the policy is actually enacted. I would say that this would not be a long run trend, as there would also be greater access to sufficient treatment and rehabilitation.

Another limitation that could potentially arise is the continuation of black markets for drugs that are easy and cheap to manufacture/harvest. Marijuana fits the bill for both of those criteria. All that is needed is fertile land to grow it on, and agreeable weather. Crystal Meth is also very cheap to make, and highly addictive. For this reason I not foresee this drug on the shelves of depositories. But without a doubt, there would still be demand for. I feel these limitations would decrease in intensity over time legal drugs would find price equilibrium, naturally eliminating those markets.

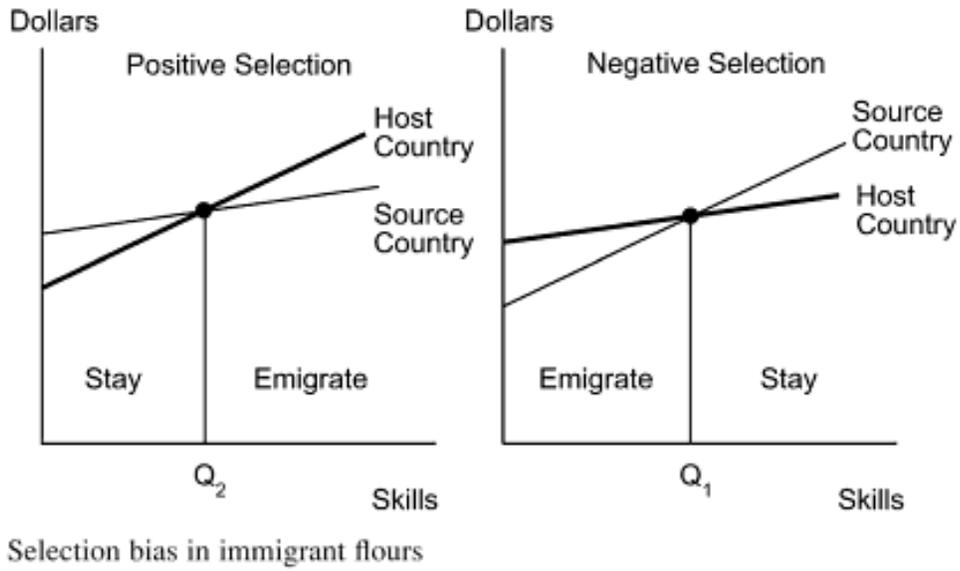
## **Conclusion**

Both immigration policy and drug prohibition have an implied similarity. By restricting something that a cohort is after, you will likely incur exorbitant costs when trying to enforce policies that are meant to hinder access to those wants. To be successful in managing these situations, it is critical that those who will be enacting said policies completely understand that there will be trade-offs involved. By loosening immigration laws, while tightening the noose on employers to keep workers legal, there is an innate that risk there could be a massive inflow of immigrants into the country. As immigrants are also contributing members to the economy, legalizing their ability to work could in turn generate income tax revenue. Furthermore, by giving them legal wages, they will sequentially have greater purchasing power in which to reintroduce money into the economy. The other side of that coin lies in overpopulation, potential for increased crime, and degradation of resources.

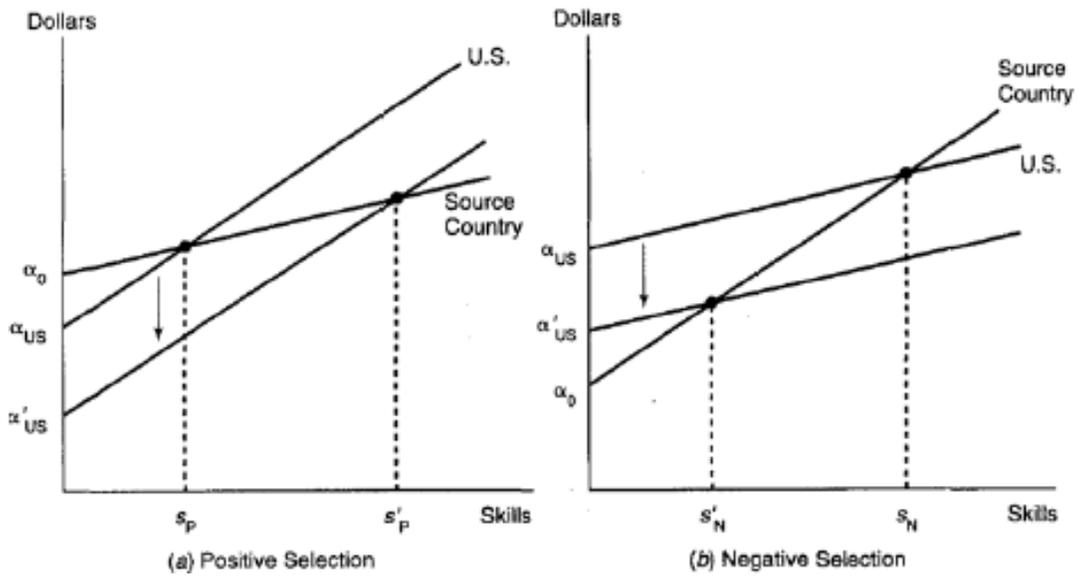
The current administration in the United States that encourages the prosecution of all participants of the drug market, are likely doing more harm than good. Excess profits are available to those (cartels) who wish to participate in these markets, and retention of control of those markets is kept through violence and intimidation. Nonviolent crimes stem from the need to finance addictions, along with a lack of alternatives to the continued use of drugs. Health of the population is also degraded as shared risks of infectious diseases are spread through circles of drug users, which can eventually spillover to the general population. Overdose due to the lack of regulation is always a fear, as the quality of substances can take a back seat to the distributors need for profit.

By decriminalizing drugs, citizens are freed from the burgeoning fear that arises from prohibition and enforced prosecution. The stigma attached to drug use will be forgotten, and users will be treated as patient and equals, rather than inmates and criminals. Both violent and nonviolent crimes decrease because of the lowered price of drugs, finally creating a higher marginal cost than marginal benefit. Finally, the health of the population could potentially be upgraded from pre-prohibition levels due to greater access to healthcare and treatment, and better drug education.

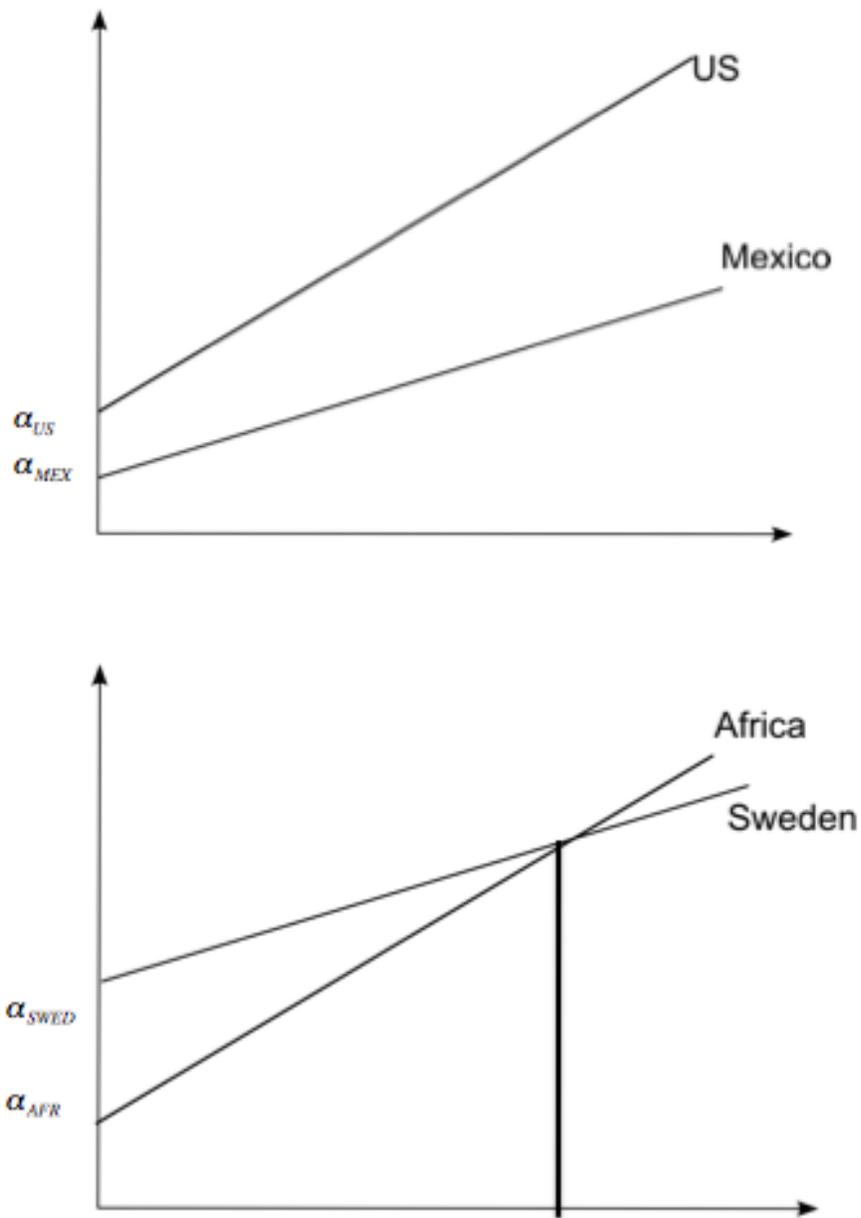
## LIST OF TABLES AND FIGURES



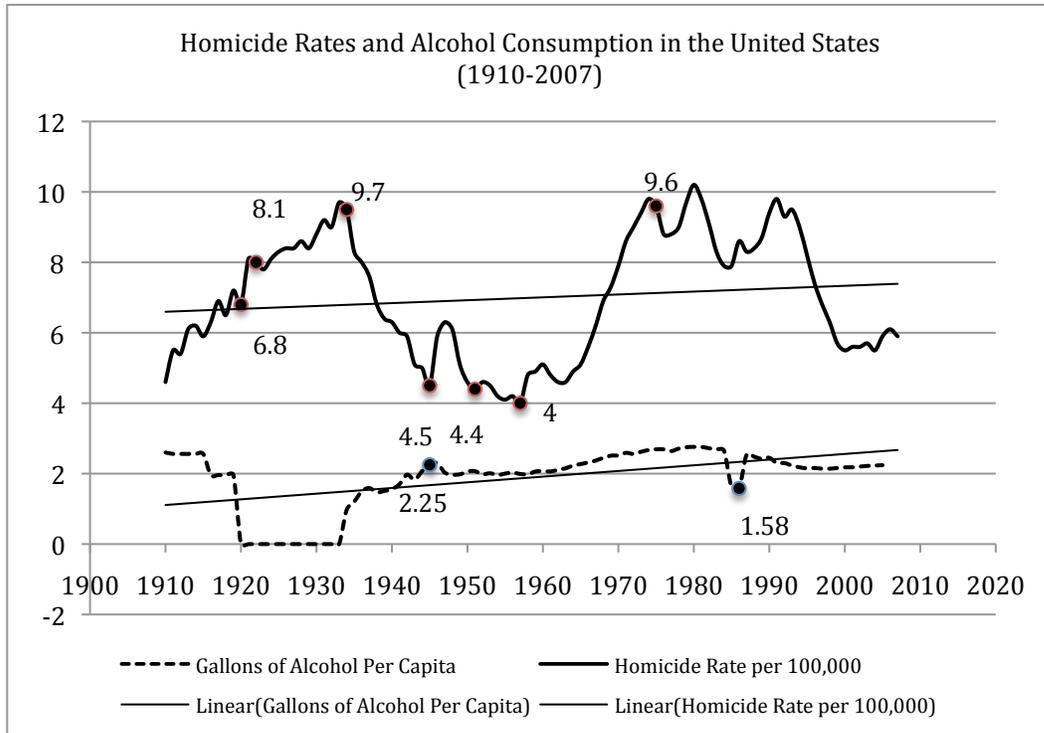
**Figure 1** Self Selection of Immigrant Flow (Bodvarsson and Van den Berg 2009)



**Figure 2** Immigrant Flows When Income Falls (Bodvarsson and Van den Berg 2009)



**Figure 3** Immigration Possibilities for United States, Mexico, Sweden, and Africa.



**Figure 3:** Homicide Rates and Alcohol Consumption in the United States (1910-2007)

Source: Crime in the United States, 2008, FBI, Uniform Crime Reports

. reg hr L.hr year u proh stproh nca heroine ada nmda

Source	SS	df	MS			
Model	278.971351	9	30.9968167	Number of obs =	97	
Residual	19.4952551	87	.224083393	F( 9, 87) =	138.33	
				Prob > F =	0.0000	
				R-squared =	0.9347	
				Adj R-squared =	0.9279	
Total	298.466606	96	3.10902714	Root MSE =	.47337	

hr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
hr						
L1.	.9384032	.0443884	21.14	0.000	.8501765	1.02663
year	-.0063228	.0099557	-0.64	0.527	-.0261109	.0134652
u	.0010651	.0157116	0.07	0.946	-.0301634	.0322936
proh	.3845749	.237748	1.62	0.109	-.087975	.8571248
stproh	.241	.3583139	0.67	0.503	-.4711877	.9531876
nca	.5840007	.241602	2.42	0.018	.1037907	1.064211
heroine	-.0270518	.3078053	-0.09	0.930	-.6388481	.5847445
ada	.1451741	.3668853	0.40	0.693	-.5840502	.8743984
nmda	-.174721	.3716018	-0.47	0.639	-.9133198	.5638778
_cons	12.45612	19.45281	0.64	0.524	-26.20845	51.12068

**Table 1:** Results from regression on homicide rates with lagged homicide rate, year, unemployment, and policy variables.

. reg lhr L.lhr year u proh stproh nca heroine ada nmda

Source	SS	df	MS			
Model	6.13577365	9	.681752628	Number of obs =	97	
Residual	.436844144	87	.005021197	F( 9, 87) =	135.77	
				Prob > F =	0.0000	
				R-squared =	0.9335	
				Adj R-squared =	0.9267	
Total	6.5726178	96	.068464769	Root MSE =	.07086	

lhr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lhr						
L1.	.9281097	.0431351	21.52	0.000	.8423739	1.013845
year	-.0012849	.0014809	-0.87	0.388	-.0042283	.0016585
u	.0008213	.0023178	0.35	0.724	-.0037857	.0054282
proh	.0535576	.035673	1.50	0.137	-.0173464	.1244617
stproh	.0375524	.0531502	0.71	0.482	-.0680894	.1431941
nca	.0991805	.0360011	2.75	0.007	.0276244	.1707366
heroine	.0026497	.0448626	0.06	0.953	-.0865197	.091819
ada	.0206931	.054886	0.38	0.707	-.0883987	.1297849
nmda	-.0198702	.0554421	-0.36	0.721	-.1300674	.090327
_cons	2.587291	2.904034	0.89	0.375	-3.184792	8.359374

**Table 2:** Results from regression on homicide rates with lagged homicide rate, year, unemployment, and policy variables.

Prais-Winsten AR(1) regression -- iterated estimates

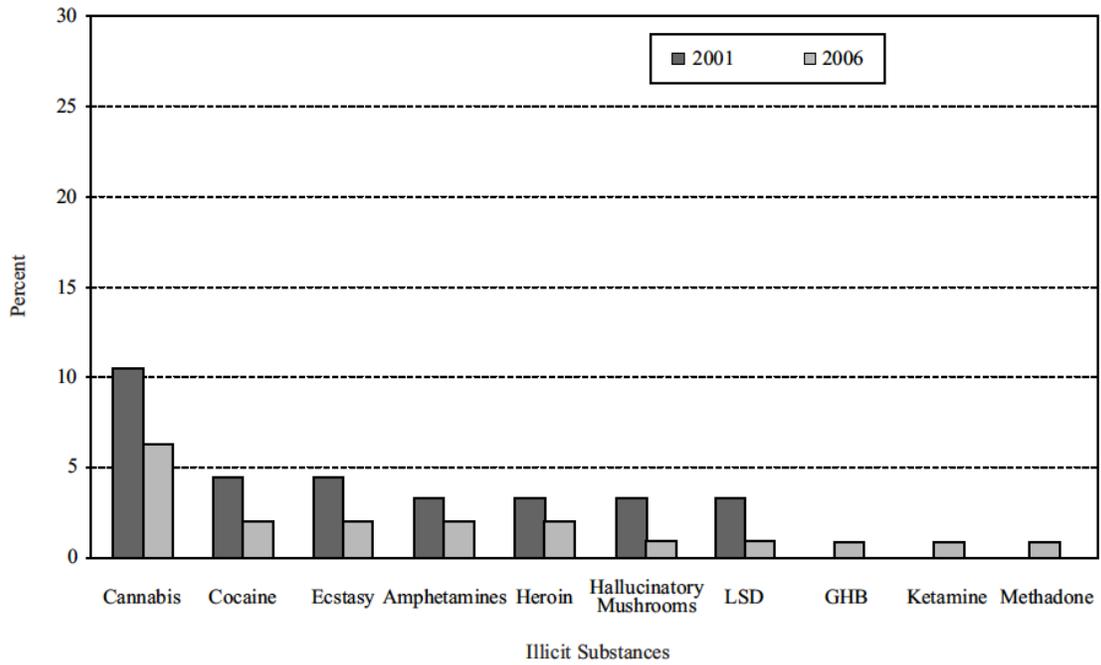
Source	SS	df	MS	Number of obs =	97
Model	147.925445	9	16.4361605	F( 9, 87) =	76.47
Residual	18.6985598	87	.214925974	Prob > F =	0.0000
				R-squared =	0.8878
				Adj R-squared =	0.8762
Total	166.624005	96	1.73566671	Root MSE =	.4636

hr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
hr						
L1.	.8728355	.053067	16.45	0.000	.767359	.978312
year	-.0156937	.0116009	-1.35	0.180	-.0387518	.0073644
u	.0111251	.0186096	0.60	0.552	-.0258635	.0481136
proh	.2722402	.2903004	0.94	0.351	-.3047633	.8492437
stproh	-.1072628	.4238981	-0.25	0.801	-.9498061	.7352805
nca	.7012239	.2938716	2.39	0.019	.1171222	1.285326
heroine	.3098371	.3595227	0.86	0.391	-.4047531	1.024427
ada	.237703	.4015531	0.59	0.555	-.5604274	1.035833
nmda	-.165131	.4071707	-0.41	0.686	-.9744268	.6441648
_cons	31.04732	22.65241	1.37	0.174	-13.9768	76.07143
rho	.2631031					

Durbin-Watson statistic (original) **1.650520**  
 Durbin-Watson statistic (transformed) **2.026590**

**Table 3** Results from Prais-Winsten regression with Durbin-Watson test statistic

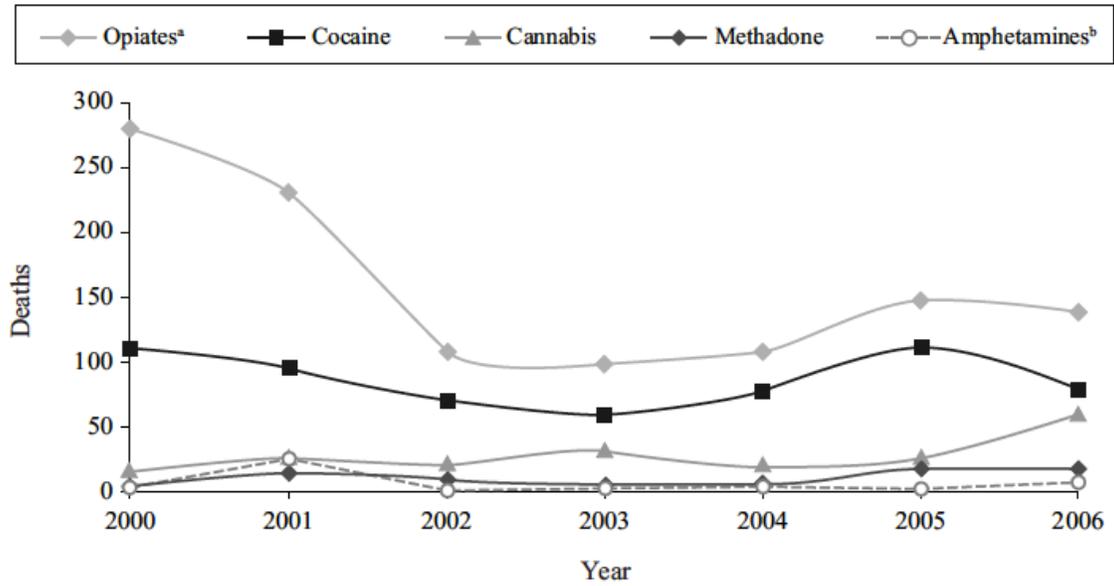
National Investigation in School Environment, 2001 and 2006, 3rd Cycle (7th, 8th, and 9th years), Portugal, Prevalence Over Entire Life



Source: Instituto da Droga e da Toxicodpendência de Portugal, Draft 2007 Annual Report, slide 13.

**Figure 4:** Prevalence of Illicit Substances in Middle School Age Children (Greenwald, 2009)

### Deaths, by Year, by Substance



Source: Instituto da Droga e da Toxicoddependência de Portugal (Institute on Drugs and Drug Addiction of Portugal), "The National Situation Relating to Drugs and Dependency," 2006 Annual Report (2007), p. 31.

**Figure 5:** Deaths, by Year, by Substance, Portugal (Greenwald, 2009)

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