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Abstract

Many disciplines have addressed inclusion; however, inclusion has not been discussed in economics, in particular when it comes to LGBTIQ+ policies. This work bridges this gap by creating an ‘LGBTIQ+ Index’ and by identifying macroeconomic variables that may explain inclusion.

The LGBTIQ+ index was built using a two-tier discounted reward model. It is based on existing indices, but takes more minorities into account, including intersex and transgender people. The index also considers the current and changing public opinion on queer policies. The index is comprised of four categories: General, Sexual Orientation, Gender Identity, and Intersex. Each category is divided into several subcategories that address inclusive policies concerning Decriminalization, Anti-Discrimination, and Partnership & Family Recognition. The more policies a country has, the more inclusive it becomes. In total, 46 countries were ranked from the most inclusive, such as Malta and Canada, to the least inclusive, such as Saudi Arabia.

To determine whether a country was inclusive, macroeconomic variables were analyzed using multivariate regression. The results showed that inclusion may be explained by urbanization and female high school enrolment rate, suggesting that an economy becomes more LGBTIQ+ friendly when more people live in cities and when more females receive a secondary education.

The index could be useful for policy-making and business: policymakers could use it to see how progressive a country is, and businesses could use it to determine where they can safely send their queer employees.

Abstract

Verschiedene Forschungsgebiete habe das Thema Inklusion behandelt. Die Volkswirtschaftslehre hat sich jedoch noch nicht mit diesem Thema auseinandergesetzt; insbesondere im Bereich der Maßnahmen für LGBTIQ+ Personen. Diese Arbeit versucht diese Lücke zu schließen. Zum einen mit der Erstellung eines LGBTIQ+ Index und zum anderen mit der Bestimmung von makroökonomischen Variablen, die Inklusion erklären können.

Zur Erstellung des Index wurden bereits bestehende Indizes erweitert und mehr Minderheiten wie intergeschlechtliche und transgender Personen miteinbezogen. Darüber hinaus modelliert der Index die aktuelle und sich ändernde Meinung der Bevölkerung in Bezug auf queere Maßnahmen. Die Methode die hierfür verwendet wird, ist ein zweigliedriges diskontiertes Belohnungsmodell.

Der Index gliedert sich in folgende vier Kategorien: Generell, sexuelle Orientierung, Geschlechtsidentität, und Intergeschlechtlichkeit. Jede dieser Kategorien spaltet sich in mehrere Subkategorien auf, welche inklusive Maßnahmen umfassen, wie zum Beispiel: Entkriminalisierung und Partner*innenschaft & Familienanerkennung.
Je mehr Maßnahmen eine Volkswirtschaft implementiert hat desto inklusiver ist sie. Insgesamt wurden 46 Volkswirtschaften im Rahmen dieser Arbeit analysiert, die inklusivsten Länder sind Malta und Kanada, das am wenigsten inklusivste Land ist Saudi Arabien.

Zur Bestimmung dieser inklusivsten Länder wurden mehrere makroökonomische Variablen getestet. Das Ergebnis ist, Inklusion kann anhand von Urbanisierung und der Rate von Sekundarstufenschülerinnen erklärt werden. Demnach werden Volkswirtschaften durch Urbanisierung und mehr Bildung für Mädchen inklusiver.

Der Index kann sich besonders für die staatliche Maßnahmenentwicklung sowie private Unternehmen als sehr hilfreich erweisen. Policymakers können anhand des Index feststellen in welchen Maßnahmenen Bereichen nachgebessert werden können. Unternehmen können diesen Index verwenden um zu bestimmen in welche Länder sie queere Mitarbeitende entsenden können.

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1. Indices

1.1. Legal Count Index (LCI)

The Legal Count Index assesses seven different legal norms regarding lesbian, gays and bisexuals, they are listed underneath. The more of the seven policies are fulfilled, the more inclusive a country is. If just one policy is in place, the country's LCI value is one, if all seven policies are in place the country exhibits an LCI value of 7 (Badgett, Park and Flores, 2018).

1. Decriminalization of homosexuality
2. Open military service
3. Employment non-discrimination protection
4. Public accommodations protection
5. Adoption rights for same-sex couples
6. Legal marriage recognition
7. Constitutional provisions ensuring sexual orientation non-discrimination

1.2. Legal Environment Index (LEI)

This index is based on the same legal norms as the LCI. However, the Legal Environment Index takes a different approach, instead of solely counting the number of legal norms fulfilled, the LEI measures the level of inclusion, the list below provides a detailed explanation for each level of inclusion (Flores and Park, 2018).

The technique used to develop this index is a Hidden Markov Model, it reveals patterns of legislation. After a country decriminalizes homosexuality, it can take two pathways. Either the country implements laws against discrimination or it passes family recognition laws. If a country decides to go for laws against discrimination, the second step is family recognition and vice versa. Both pathways will eventually lead to the fullest inclusion. (Flores and Park, 2018).

1 No inclusion

Countries within this category have none of the seven policies of the LCI established.

2 Decriminalization

Countries within this category are only practicing the decriminalization law.

3 Some inclusion

Countries within this category are on a path from decriminalization to further recognition through allowing military service or adoption rights.

4 Greater inclusion

Countries within this category expand inclusion from stage 3 into the presence of non-discrimination laws or the right to marry.

5 Most inclusion

Countries within this category have almost implemented all of the policies mentioned above (5-7 of them).

1.3. Augmented Global Index on Legal Recognition of Homosexual Orientation in OECD (AGILRHO)

This index is based on similar policies as the previous indices, they are shown below (Valfort, 2017; Waaldijk, 1994).

1. Are homosexual acts between adults legal in criminal law?
2. After decriminalization, are age limits equal for homosexual and heterosexual acts?
3. Is discrimination in employment based on sexual orientation explicitly forbidden in legislation?
4. Is discrimination in the provision of goods and/or services based on sexual orientation explicitly forbidden in legislation?
5. Is there any recognition in the law of non-registered cohabitation by same-sex partners?
6. Can same-sex couples enter into a registered partnership or civil union?
7. Is second-parent and/or joint adoption by same-sex partner(s) legally possible?
8. Can same-sex couples get legally married?
9. Is discrimination based on sexual orientation constitutionally prohibited?
10. Are hate crimes based on sexual orientation considered as aggravating circumstances resulting in heavier sentences?

However, this index is slightly different from the very first index because policies can have values of either 0, 0.5 or 1 while the first index does not have the option of 0.5. Zero stands for a policy that is not implemented. The assignment of 0.5 represents a partial policy implementation. For example, Mexico has a value 0.5 for same-sex marriage because not all states in Mexico allow same-sex marriage and therefore the implementation is partial. A Value of one stands for the full implementation of a policy in every part of a country. After assigning values to every policy, those values are summed up and determine a country's LGB friendliness (Valfort, 2017).

1.4. Transgender Rights Index in OECD (TRI)

This index focuses just on transgender rights. It works similarly to the previous index; values from 0, 0.5 and 1 are assigned and summed up (Valfort, 2017).

1. Is gender identity discrimination forbidden in legislation?
2. Are hate crimes based on gender identity considered an aggravating circumstance?
3. Is changing the gender marker legal?
4. If a change of the gender marker is legal, does it require sterilization, sex reassignment surgery or gender reassignment surgery?
5. If a change of the gender marker is legal, does it require a psychiatric diagnosis?

1.5. Rainbow Europe Ranking (RER)

This index is in its own way similar to the previous ones but more detailed. It splits into six different categories starting with non-discrimination policies and ends with asylum; all of them can be found below. Each of these categories splits further into sexual orientation, gender identity and intersex which then contains several policies. Whenever one policy, such as same-sex marriage, is enacted, a certain percentage rate is given to the country. Eventually, all of those percentages are summed up and determine the Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) friendliest country (Karsay, 2018).

1. Equality and non-discrimination (25 %)
2. Family (27 %)
3. Hate crime and hate speech (20 %)
4. Legal gender recognition and bodily integrity (15 %)
5. Civil society space (8 %)
6. Asylum (5 %)

2. Critique of Current Indices

Every index shows advantages and disadvantages. For example, the first index described in this work, the Legal Count Index includes more than a hundred countries, however, it still lacks representation, no more than a few Asian and African countries are covered. Possible reasons for this underrepresentation can be language barriers and the accessibility of data.

Another point to look at is how the Legal Count Index (LCI) treats criminalization of sexual acts among same-sex people, it recognizes just one level of criminalization. However, countries criminalize sexual acts among same-sex people differently, and distinguishing just one level of criminalization makes it fairly difficult to accurately distinguish countries. For example, some countries punish sexual acts among same-sex people by the death penalty while other countries punish it by imprisonment. In this example, the LCI would treat those two countries the same way, even though the punishments are different.

The last point to highlight, the LCI and LEI have a strong focus on sexual orientation, neither index covers policies on gender identity or intersex policies. This raises the question, how inclusive are such indices? Despite these flaws, the Legal Count Index can still provide a general idea of LGB friendliness.

OECD Index is more inclusive in that matter, one particular OECD index goes beyond it and just evaluates gender identity. However, the OCED does not cover

intersex policies. Another issue of the OECD index is the mere focus on OECD member states, all Asian, African and Latin American countries are not included. Similar to the two previous indices, the OECD does not differentiate levels of criminalization.

The Rainbow Europe Ranking (RER) is the most inclusive and precise index; it covers a very broad range of sexual orientation, gender identity and intersex policies. An example of its precision compared to the LCI index. According to the LCI Finland, Portugal and Sweden have the same level of inclusion, the RER assigns the following values: Finland 69.27, Portugal 66.35 and Sweden 61.70 %. The RER exactly distinguishes among each and every country.

However, the RER cannot be an international LGBTIQ+ Index because of its strong focus on Europe and it does not distinguish among different levels of criminalization. Including different levels of criminalization allows ranking the least inclusive countries accurately.

Another factor no index covers is social acceptance towards queer people (In this work ‘queer’ is used as an umbrella term for lesbians, gays, bisexuals, transgender, intersex, non-binary people and any other gender identities). A country can allow for same-sex marriage but it does necessarily not mean everyone supports same-sex marriage. A good index covers social acceptance, there have been attempts to include social acceptance in some indices. For instance, the Global Acceptance Index has estimated acceptance through surveys. However, running representative

surveys for each and every country is beyond the scope of this work. There are other ways to model social acceptance, this work explores quantitative methods to do that. One possible method is discussed in the next chapter (Flores and Park, 2018b).

3. Methodology LGBTIQ+ Index

As discussed in the previous chapter, an inclusive index has to cover more minorities. This work develops an LGBTIQ+ index covering policies for Lesbians, Gays, Bisexuals, Transgender, Intersex, Queer and other identities (LGBTIQ+). All the policies covered in the index will be further discussed in the next chapters.

This chapter explains how an acceptance rate can be modelled in an index. An acceptance rate represents how many percent of a population tolerates a certain group of people, for example, gay people. One policy that affects gay people is same-sex marriage, it allows gay people to get married. Flores and Barclay analyzed the effects on public opinion before and after the introduction of same-sex marriage. Eight months after the introduction of same-sex marriage Flores and Barclay analyzed the change in public opinion. More than 23.3 percent who were opposing same-sex marriage before the introduction now feels ambivalent about same-sex marriage. This is a very strong change in attitude within just 8 months and supports the hypothesis, the longer an LGBTIQ+ policy is in place the stronger is the social acceptance (Flores and Barclay, 2015).

3.1. Reward system

Flores and Barclay showed that the longer a policy is in place the more accepting the public becomes. To model this idea, a country has to receive a reward that is time-dependent. This could look the following way, a country that implemented a policy very early receives a higher reward than countries that implemented the same policy later. Giving different rewards to countries reflects public opinion on a policy.

3.2. Discount Factor

A technique to implement such a reward system is a simple discount factor. A good discount factor should be slowly diminishing, so that countries which implemented a policy some years later, still receive a reward. After testing different values, a two percent discount factor meets this requirement. The reward is modelled the following way: (1-a) with a = 0.02.

After a couple of decades, the reward becomes too low, [(1-a)^n], n represents the number of years since the first implementation of a policy. This is an issue for countries that implemented a policy late, they would not receive any reward. Using a two-tier reward system and applying the discount factor to just one part solves the issue. The first reward - static reward - is granted for the mere implementation of policy and the other reward -dynamic reward- is discounted.

Assuming a country implements a policy, it always receives both rewards right away but the value of these two rewards can be different. The static reward represents the embracement of policy and is always the same no matter when a country implements policy. However, the dynamic reward varies over time as it is time-dependent. Assuming a country was the first one passing a certain policy, it receives the full dynamic reward, if other countries pass the same policy one year later, the dynamic reward gets discounted once. If another country passes the same policy two years later the full dynamic reward gets discounted twice and so on. Here is an example of a dynamic reward at work.

Assuming same-sex marriage recognition has a weight of 0.1 percent. Splitting the static and the dynamic reward into two equal parts, it results in 0.05 percent for each reward. For example, the Netherlands was the first country to introduce same-sex marriage in 2001. The Netherlands will receive 0.05 for the static and 0.05 for the dynamic reward, summing up both to 0.10. Two years later Belgium introduced same-sex marriage. Belgium receives 0.05 as a static reward and 0.05*0.98*0.98 as the dynamic reward, resulting in a total reward of .098.

The value for Belgium is slightly lower than the one for the Netherlands, implying the acceptance rate in the Netherlands is higher than in Belgium.

4. Country Selection

The LGBTIQ+ index covers countries from every continent, different from the OECD indices or Rainbow index, which have a focus on developed economies.

From each continent, the five most inclusive and least inclusive countries will be part of this work. To determine those countries, the previously discussed indices serve as guidance. Sometimes problems in determining the most or least inclusive countries arise, if this is the case, secondary variables such as geographical location and population will be used. The secondary variables help to pick the most populated and geographically different countries.

4.1. Europe

Selecting just five countries from Europe is not an easy process. The AGILRHO index helps to find those five most inclusive countries, however, the AGILRHO index determines eleven equally inclusive countries. To reduce the number of countries to five, we take a look at the trans index, TRI. Out of the eleven countries, the TRI index identifies the following six countries as the most inclusive ones: Portugal, Sweden, Denmark, France, Iceland and the Netherlands (Valfort, 2017).

Considering another Index, the LEI, those six pre-selected countries (Portugal, Sweden, Denmark, France, Iceland and the Netherlands) have the same high value as 11 other countries. Using LEI makes it very difficult to select five countries. Maybe the most precise index -the Rainbow Europe index - can solve this issue.

According to the Rainbow index countries other than the pre-selected ones are the most inclusive ones, Malta, Belgium, Norway, UK, Finland and France (Flores 2018a; Karsay 2018; Valfort 2017).

What causes this difference among the most inclusive countries? For example, Malta, the leading country in the RER index, was not ranked in the AGILRHO OECD index as Malta is not a member of the OECD countries. Malta the leader in the RER will be the first country for Europe in this analysis ("List of OECD Member countries", 2019; Valfort, 2017).

Belgium was not among the pre-selected countries neither because it had less than 3 points in the TRI index which excluded Belgium in the pre-selection process. However, in 2017, a new gender recognition law was passed in Belgium. This legal change occurred after the TRI index was created. Taking this law change into account ranks Belgium as high as the other pre-selected countries. Achieving the 2nd place in Rainbow rankings makes Belgium definitely a part of this analysis ("Belgium - New Gender Recognition Law with Obstacles", 2017; Valfort, 2017).

The exact same explanation applies for Norway, a modern gender recognition reform was passed recently and having Norway in the 3rd place in the Rainbow Index makes it one of the most inclusive European countries (Karsay 2018; Knight, 2016).

The next countries in the Rainbow Ranking are the UK, Finland, France, Portugal, Denmark and Spain, they have very similar percentages. Using the secondary variable, population, makes the UK and France finish the list of the most inclusive European countries. The final list consists of Malta, Belgium, Norway, UK and France (Karsay, 2018; “Population”, 2019).

Which countries are the least inclusive ones in Europe? The AGILRHO index does not help to answer this question as it just consists of OECD member states. The LEI includes more European countries, however, no European country has the lowest possible value (Flores 2018a; Valfort, 2017).

According to the rainbow ranking, the least LGBTIQ+ friendly European are Turkey, Monaco, San Marino, Moldova, Belarus, FYR Macedonia, and Latvia.
Monaco and San Marino are city-state countries, which are an exception in Europe, they are excluded from further analysis. After this exclusion, Turkey, Moldova, Belarus, FYR Macedonia, and Latvia represent the least inclusive countries in Europe (Flores 2018a; Valfort, 2017).

4.2. North America

North America consists of Canada, Mexico and the United States and all three of them are included in the LGBTIQ+ Index.

4.3. South and Central America

The LEI is the only index that covers South and Latin American countries. However, the LEI just focuses on LGB people. Although this work tries to cover trans and intersex people as well, the LEI can give an idea (Flores 2018a).

According to the LEI Colombia, Uruguay, Brazil and Chile are LGB friendly with 3 out of 5 points. Countries with 2 out of 5 points in the LGB index are Costa Rica, Ecuador, El Salvador, Honduras, Nicaragua, Peru and Venezuela. So far, there is no Central American country among the four selected countries. Nicaragua as the most populated Central American country is going to be part of the five most inclusive Central American countries (“Population”, 2019; Flores 2018a; Valfort, 2017).

The least LGB friendly countries in Central and South America are Jamaica and Trinidad and Tobago. Both countries have zero points out of five in LEI. The next countries in the LEI with one point, are Dominican Republic, Panama, Guatemala and Paraguay. Of all of the last four countries, Panama has the smallest population and will be excluded. The final list consists of Jamaica, Trinidad and Tobago, Dominican Republic, Guatemala, and Paraguay (“Population”, 2019; Flores 2018a).

4.4. Australia and Oceania

Australia and New Zealand are the only countries that are listed in all mentioned indices from above. However, there are more countries in Oceania. For example, Papua New Guinea, Kiribati and Samoa which are the largest countries of the three most populated regions Melanesia, Micronesia and Polynesia. One might raise the question, why the country selection for Australia and Oceania does not cover 10 countries as for every other continent. Most countries in Oceania are too small to provide sufficient information about legal norms. To partly cover the region in the index the three largest countries Papua New Guinea, Kiribati and Samoa are included in this work (“Population”, 2019).

The final list in this region consists of Australia, New Zealand and Papua New Guinea, Kiribati and Samoa.

4.5. Africa

Based on the LEI, there are no countries in Africa that have four or three points. However, there are exactly five countries with two points, South Africa, Botswana, Cape Verde, Mauritius and Mozambique (Flores 2018a).

The least LGB friendly countries are the ones with zero points in LEI. There are 21 countries in Africa with 0 points and not even all African countries are included in

LEI, since Sudan and Mauritania are missing. Both of those countries have laws punishing homosexual acts with the death penalty. Sudan and Mauritania have to be included as the least LGB friendly countries. The last three of the five countries are Nigeria, Ethiopia and Tanzania, they are the most populated African countries and are among the countries with zero points (Flores, 2018a).

4.6. Asia

According to LEI with a cutoff of two points, the most LGB friendly countries in Asia are Israel, China, Georgia, Indonesia, Russia and Thailand. Taking the secondary variables into account, all countries represent different regions in Asia such as Southeast Asia, Levant, North Asia and Central Asia. As the maximum number of countries for a continent is five, Georgia as the least populated country will be excluded. (Flores, 2018a).

The least LGB friendly countries in Asia, are the ones with zero points in the LEI. Those countries are India, Iran, Kuwait, Lebanon, Malaysia, Pakistan, Singapore, UAE and Uzbekistan. Among these countries, the five most populated are India, Pakistan, Iran, Malaysia and Uzbekistan (Flores, 2018a).

5. LGBTIQ+ Index Weighting

The LGBTIQ+ index is divided into four sections and has the following weightings:

- General (5 %)
- Sexual Orientation (45 %)
- Gender identity (30 %)
- Intersex (20 %)

This chapter focuses on the inclusive policies embraced by the LGBTIQ+ index. The bases for the LGBTIQ+ index is the Rainbow Europe index. A full breakdown of the LGBTIQ+ index can be found in the appendix (Karsay, 2018).

5.1. General

The first section of the LGBTIQ+ index focuses on the international support for the LGBTIQ+ community. In particular, the Human Rights Council of the United Nation and the General Assembly passed several statements to express their support for LGBTIQ+ rights.

The Human Rights Council consists of 47 member states of the UN. This committee does not cover all countries. A committee with more countries would be a better choice to assess a country's international support. ("Human Rights Council", 2019).

A better option is the General Assembly, it consists of all countries. The General Assembly passed LGBTIQ+ supportive joint statements on 1st December 2006 and on 18th December 2008.

If a country supports LGBTIQ+ rights in a UN body, that country should be rewarded in the index. Any Country which supported the joint statement in 2006 receives 2.5 %, countries that keep supporting the next joint statement receive another 2.5 %. Some countries decided not to support the 2nd joint statement anymore, resulting in a reduction of 2.5 % (“Joint Statement”, 2006; “Joint Statement 2008”, 2008).

5.2. Sexual Orientation

The sexual orientation section splits into these three subcategories:

- Decriminalization (20 %)
- Anti-Discrimination (35 %)
- Partnership and Family recognition (45 %)

5.2.1. Decriminalization

This part focuses on the decriminalization of homosexuality in an economy. The first policy is if sexual acts among same-sex people are legal. The level of legality is represented in a hierarchy. If the first policy in the hierarchy is not fulfilled, the

preceding policy has to be checked. If that preceding policy is not in place either, one policy after another has to be considered until one is in place.

- Are sexual acts among same-sex people legal? (15 %)
    - Unenforced penalty (5 %)
        - Imprisonment (2 %)
            - Up to lifetime imprisonment (1 %)
                - Death penalty (0 %)
- Are Age limits among hetero and homosexual acts equal? (5 %)

Some countries like Guatemala legalized same-sex acts very early in the 19th century. This leads to some modelling issues because most countries legalized same-sex marriage later and would receive a very low reward. This problem can be fixed by setting a starting point for the discount rate. A good starting point is 1950, it is after the 2nd world war and before most countries started to legalize same-sex acts (Mendos, 2019). Any countries which legalized same-sex marriage before 1950 received the full reward and all other countries receive a discounted reward accordingly. This category legalizing same-sex acts splits into two equal percentages, a static as just mentioned and dynamic reward. These rewards serve the purpose to model the acceptance rate.

There are countries that have not legalized same-sex acts yet. For example, countries that have not legalized same-sex acts and are not enforcing punishment in the last three years, receive a 5 % reward. Countries that punish same-sex acts with imprisonment receive 2 %. One might argue such countries should not receive any percentage for throwing someone in prison, because of their sexual orientation. However, there is a need for differentiation, countries like Nigeria have even worse legal punishment. Gays in Nigeria get punished with lifetime imprisonment, even this not the strongest punishment. Hence, countries enforcing lifetime imprisonment receive a reward as low as 1 %. Countries like Sudan have the worst punishment in place, they punish same-sex acts with the death penalty, such countries do not receive any reward. This detailed differentiation is necessary to distinguish countries at the very bottom of inclusion (Mendos, 2019).

Even though the legal penalty, such as imprisonment or death, may remain unenforced in some countries, such countries do not receive a dynamic reward. The same applies to countries that enforce lifetime imprisonment and the death penalty. This is due to two major reasons. First, the lack of data on the year when those laws were passed. Second, assigning countries a dynamic value for imprisonment goes against the idea of modelling social acceptance. There cannot be social acceptance if a country decides to punish people based on their sexual orientation.

The age of consent is another law considered by this index. In some countries, the age of consent differs from same-sex partners and different-sex partners. This difference stems from the notion of pedophilia assigned to same-sex intercourse.

When the law of age of consent was passed, lawmakers were afraid of sexual child abuse by gay men. There is no scientific ground for this decision and it was just based on the fear of the unknown. This different legal treatment for intercourse is clearly discrimination against same-sex relationships. Countries that do not discriminate on the age of consent receive a reward of 5 %. There is no dynamic reward, due to the lack of data (Mendos, 2019).

5.2.2. Anti-Discrimination

The following anti-discrimination policies are included in the LGBTIQ+ index. Each policy has an equal dynamic and static reward.

- Is discrimination based on sexual orientation constitutionally prohibited? (5 %)
- Are hate crimes based on sexual orientation considered as an aggravating circumstance? (5 %)
- Is discrimination in employment not allowed? (5 %)
- Is discrimination in the provision of goods and services not allowed? (5 %)
- Is conversion therapy banned? (5 %)

5.2.2.1. Constitutionally prohibition

Constitutionally prohibiting discrimination is a very powerful act, a change in a constitution usually requires a supermajority in the parliament or the government's law approving institution, making it very difficult to reverse such an act. In several

Brazilian jurisdictions, discrimination based on sexual orientation is constitutionally prohibited. The first Brazilian region that implemented a constitutional prohibition was Mato Grosso in 1989. Until now, not all states of Brazil have constitutionally prohibited discrimination on sexual orientation. Therefore, Brazil just receives half of the static and dynamic reward (Mendos 2019, Suber 1999).

5.2.2.2. Hate Crimes an aggravating circumstance

Until now, queer people are often a target of hate crimes. Such hate crimes need to be prevented, one way is to punish crimes based on sexual orientation harder. The outcome of harder punishment is, the perpetrator may be afraid of longer sentences. Countries that have this policy in place receive a 5 % reward (Ehrlich, 1972).

5.2.2.3. Conversion therapy

Conversion therapy is a pseudo-scientific procedure to change someone's sexual orientation into heterosexuality. Some countries started banning such procedures. In Canada, Ontario and Manitoba banned conversion therapy in 2015. Regarding the US, California banned conversion therapy in 2012. However, the US and Canada still have not banned conversion therapy on a federal level. This gives the US and Canada just half the value of both rewards (Cramer, Golom, LoPresto and Kirkley, 2008; Mendos, 2019).

5.2.2.4. Discrimination in employment

Regarding the workforce, queer people might not get hired or promoted because of their sexual orientation, prohibiting such discriminatory acts helps LGBTIQ+ people at work (Gao and Zhang, 2016).

Minnesota was the first state in the United States and the first place in the world which implemented employment protection based on sexual orientation. In 2017, the US Court of Appeals decided not to permit any discrimination in employment at the federal level. In the index, the US receives the first half of both rewards as Minnesota first implemented employment protection and by 2017 the remainder of both values is assigned (Mendos, 2019).

The federal district in Brazil was the first state which passed employment protection on a federal level in 2015 (Mendos, 2019). Analogously to the US, values are assigned to Brazil.

In Australia, New South Wales was the first state which passed laws for employment protection. In 1996 employment protection was established throughout Australia (Mendos,2019). The values for the LGBTIQ+ index are assigned in the same way as for the US and Brazil.

5.2.2.5. Discrimination in the provision of goods and services

Queer people can get discriminated against when they purchase services and goods. One of the most famous examples is a gay couple who ordered a cake for their marriage. The US confectioner rejected to make a cake for that gay wedding because of religious beliefs (Koppelman, 2014). This case demonstrates how important it is to have protection policies for the provision of goods and services. Countries having policies against discrimination in the provision of goods and services get a reward of 5 %.

5.2.2.6. Health Issues and Military

These policies have a static reward due to a lack of specific information:

- Is the military service open to Gays and Lesbians? (5 %)
- Is PrEP available as a Generic? (5 %)
    - Is PrEP available as Truvada? (2.5 %)

Just a few countries like Canada allow LGB people to join the military. If a country allows LGB people to join the military, they receive a 5 % reward.

This index includes the availability of PrEP (Pre-exposure prophylaxis). PrEP is a medication taken by people who are under a high risk of HIV exposure.

PrEP became very popular among the queer community as they have different sexual partners. Providing PrEP reduces HIV new infections, protects the queer community and has a positive impact on their overall health level. However, Truvada - the original PrEP medication - comes with a high expense, USD 1,300 a month in the US. Some countries such as Germany and Austria provide a generic for about EUR 40 which makes PrEP easily accessible, but it is still not affordable for everyone as long as it is not for free (Hankins, Macklin and Warren, 2015; Pretorius, Stover, Bollinger, Bacaër and Williams 2010). Countries that provide the generic receive 5 % and those ones which just offer Truvada at high costs get 2.5 %.

Other countries like Sudan and Mexico have planned to launch Truvada or the generic soon. In order to reward each country for taking the right steps, they receive half the reward (Global PrEP Tracker, 2019).

5.2.3. Partnership and Family Recognition

This section is divided into the following way:

- Can same-sex couples get legally married? (35 %)
    - Can same-sex couples enter into a registered partnership or civil union? (15 %)
- Can same-sex couples can adopt jointly? (5 %)
- Can same-sex couples have a second parent adoption? (5 %)

5.2.3.1. Same-sex marriage and the Civil Union

All the above mentioned legal norms are split equally into a dynamic and static reward.

Some specific adjustments are necessary for Canada since Ontario was the first province that legalized same-sex marriage in 2003. This made Ontario the first region in the world to legalize same-sex marriage. Even though same-sex marriage was not legalized in the entire country, the country should receive a partial reward, that is to say, half the amount of the dynamic and static reward. Later, in 2005, only 2 years after Ontario, Canada legalized same-sex marriage in the entire country (Mendos, 2019). Hence, Canada receives the remainder of the static and the corresponding dynamic reward.

Some countries do not allow same-sex marriage. However, they have other available options such as civil unions. If a country has a civil union option, it receives 20 %. In the case a country has same-sex marriage and civil union, the country is justly rewarded for same-sex marriage.

Mexico is a special case like Canada, both countries give strong legislation power to its states or provinces. In 2009, Mexico legalized same-sex marriage only in Mexico City. Until now, Mexico has neither legalized same-sex marriage nor civil union at the federal level (Mendos, 2019). Resulting in only receiving half the dynamic and static reward for having same-sex marriage and civil union.

5.2.3.2. Joint Adoption

Joint adoption is a possibility for same-sex couples to adopt a child together.

In Canada, British Columbia was the first province allowing joint adoption in 1996. By 2011, all provinces and one territory allowed joint adoption for non-heterosexual couples. Two territories do not allow joint adoption. As the vast majority of the Canadian population lives in places where joint adoption is possible, we assume entire Canada passed joint adoption in 2011 (Mendos, 2019).

Similarly, Australia first allowed joint adoption in Western Australia in 2002, by 2017 it was possible to adopt a child as a non-heterosexual couple in entire Australia. Canada and Australia first receive half the rewards for implementing this policy and later the remainders (Mendos, 2019).

The first jurisdiction in Mexico which allowed joint adoption was Mexico City in 2010. Other states followed later, but until now, joint adoption is not possible on the federal level, therefore Mexico receives half the rewards (Mendos, 2019).

5.2.3.3. Second Parent Adoption

A second-parent adoption is different from joint adoption. Instead of two people adopting one child together, they adopt the child one after another. A second-parent adoption can also occur if one person wants to adopt their partner's child from a previous relationship.

Similar to the joint parent adoption, British Columbia was the first province that allowed second-parent adoption in 1996 and two territories still have not passed regulations. Canada is rewarded half the amount in 1996 and the rest in 2011 (Mendos, 2019).

In Mexico, second-parent adoption is just available in a few states. It was first allowed in Mexico City in 2010, Mexico receives half the rewards (Mendos, 2019).

Australia passed joint and second-parent adoption in the same years and states. The same allocation of rewards as for joint parent adoption applies for the second parent adoption, Australia receives first half the rewards and later the remainder (Mendos, 2019).

5.3. Gender Identity

Gender Identity is someone's own perception of their gender, they could identify as male, female, trans or any other identity. Someone's gender identity has not to be correlated with someone's assigned gender at birth. A person could have male genitals but can have a female identity (American Psychological Association, 2015). This work mostly focuses on Trans people who transition from one gender to another. To determine which policies are most relevant, I interviewed two trans persons. One from Canada and one from Austria. Both trans people changed their legal gender from woman to man, one white and one Person of Color (PoC). They were asked to assign percentages to different policies. Their answers had a wide range, to unify the interviewing results, I averaged the answers and created a new weighting. The results from the interviews can be found in the annex. Comparing these new weightings to the weightings in the rainbow ranking index showed a significant difference. To represent trans people's opinion, I used their suggested weightings for this index.

Of course, a survey of just two people is definitely not representative. However, it is difficult to reach out to trans people globally. I used certain "Hashtags" on Social Media channels like "Transtoronot" to get into touch with the trans people. In order to have a representative study, at least 100 surveys are necessary, but this is far beyond the scope of this work.

The category of gender identity splits similarly as a sexual orientation in the following parts:

- Anti-Discrimination (30 %)
- Gender marker (35 %)
- Change in a name (35 %)

5.3.1. Anti-Discrimination

Anti-discrimination policies based on gender identity are very similar to the ones for sexual orientation. A detailed explanation for each policy can be found under the corresponding sexual orientation section.

- Protection for provision of goods and services (9 %)
- Employment protection (18 %)
- Are hate crimes based on gender identity considered an aggravating circumstance? (3 %)

5.3.1.1. Protection for provision of goods and services

Again, Minnesota was the first state in the US and the first place in the world that passed anti-discrimination laws on the provision of goods and services for trans people in 1975. Until today, such protection is not passed on a federal level, therefore the US receives half of the rewards (Mendos, 2019).

The exact same method applies to Mexico as just Mexico City passed such a protection law for trans people in 2017 (Mendos, 2019).

Canada is a little bit different since Ontario passed protection laws for the provision of goods and services in 2012. Later in 2017, such a law was passed on the federal level. Canada receives the first half of the rewards and in 2017 the remainder (Mendos, 2019).

5.3.1.2. Employment protection

Canada and Mexico implemented employment protection at the same time as the protection for the provision of goods and services. Both countries receive the same rewards for employment protection as for the provision of goods and services (Mendos, 2019).

In the US the first law regarding trans people protection was passed in 1993. As of today, not all states have passed similar laws, the US just receives half the rewards (Mendos, 2019).

5.3.2. Gender marker

A gender marker is the assigned sex at birth. However, someone's gender can be different from the sex assigned at birth. This happens if the wrong gender was assigned at birth or someone's gender changed over time.

This section focuses on the different requirements to change a gender marker. The section is divided the following way:

- Change of gender marker by self-identification (35 %)
    - Change in gender marker requires psychiatric diagnosis (8.75 %)
        - Change in gender marker requires gender-confirming surgery (7 %)
            - Change in gender marker requires sterilization certificate (1.75 %)

The best requirement for a gender marker change is self-identification. The advantage of self-identification is, someone who wants to change their gender, they do not have to go through embarrassing interviews with a psychologist, they can decide themselves to change their gender. One country which allows a gender marker change by self-identification is Canada (Mendos, 2019).

The second best option is a psychiatric diagnosis. It is not the best option because someone’s change of gender depends on the psychiatrist's decision. However, this is still better than not having the option of changing a gender marker at all. The next best is the requirement for change in gender marker is a gender-confirming surgery. In this case, trans people have to go through months of surgeries until they can officially change their gender marker.

The worst requirement for changing gender markers is sterilization. For instance, Switzerland makes trans people undergo sterilization before they can change their gender marker. This requirement forces trans people to become infertile, to legally change their gender marker while other countries like Canada allow self-identification (Mendos, 2019).

At this point, it is very important to highlight the costs of gender-confirming surgery. In countries like Austria and Canada, the costs are covered by public or private health insurance. In countries like Vietnam, the costs of gender-confirming surgery have to be covered by trans people themselves. As the costs for those surgeries are very high, it is almost impossible for trans people in emerging countries to have gender-confirming surgery. One of the surveyed trans people said costs are an important factor to consider in an index. However, there is barely any data on surgery cost coverage and costs could not be included in this LGBTIQ+ index (Mendos, 2019).

5.3.3. Change in Name

A change in name is another important issue for trans people. In case, a person transitioned from male to female, assuming their name was Omar, this person will always face uncomfortable situations when she is being asked for her legal name.
Countries do not make name changes easy, there are different requirements. The requirements can vary as much as for changing a change in gender marker. Those requirements can even vary within a country and sometimes the current law is not

clear (Mendos, 2019). For simplicity and the complexity of this matter, the index just distinguishes among the two following requirements:

- Change in name by self-identification (35 %)
    - Change in name requires Gender Confirming Surgery (1.75 %)

For the index calculation, change in gender marker has just a static reward. The reasons are that in some countries like India, there is no clear policy on changing gender markers. For example, in India, some courts might rule for changing a gender marker while other courts reject a change in gender marker. Other countries like Cape Verde, Mauritius, Sudan, Mauritania, and Ethiopia do not even provide any information regarding trans policies (Mendos, 2019). For the aforementioned countries, it is assumed that they do not support trans rights as they already rank very low for LGB rights.

5.4. Intersex

“The term intersex refers to the condition of being born with ambiguous genitalia, sexual organs, or sex chromosomes’ that deviate from the norm. As an example, people with androgen insensitivity syndrome (AIS) are chromosomally male and have male gonadal (that is in biological terms XY with testicles), but lack a key of androgen receptor that facilitates the ability, fetally and onward, to respond to androgens (male hormones) produced in normal amounts by the testes.” (Preves, 2003 as cited in Davis and Murphy, 2013).

The androgen insensitivity syndrome example showed, some intersex people can have testicles but look ‘female’. It is common that doctors want to ‘fix’ intersex people through surgery. In the case of androgen insensitivity syndrome, doctors would remove the testicles and build an artificial vagina. There is no medical reason for fixing someone’s genitalia, they can live a healthy life without having their testicles removed. Those unnecessary surgeries are just performed to make them fit into the social construction of male and female and leave them with lifelong personality problems. In order to prevent such surgeries, countries started banning unnecessary surgeries (Davis, 2013).

Malta is one example where such surgeries were banned in order to protect intersex children. The ban on such surgeries is a very important policy for intersex people. Another intersex policy is, having a third non-binary gender option. Giving intersex people another option as they might not identify as “male” or “female” (Mendes, 2019). One country that passed a third non-binary gender option is Germany.

How can be these two intersex policies: banning intersex surgeries and having a third gender option be weighted in an index? After consulting the Austrian National Association of Intersex People (VIMÖ), they strongly highlighted the importance of banning intersex surgeries as such surgeries change someone’s life forever. The weighting of the two policies is 80 % for the ban and 20 % for the third gender option (Appendix III, Mendes, 2019).

- Is a third gender option available? (20 %)
- Are unnecessary intersex surgeries banned? (80 %)

The topic of intersex just recently received more attention. So far, there are very few policies in place to protect intersex people which reduced the intersex part to just two policies.

6. LGBTIQ+ Index Results

6.1 LGBTIQ+ Ranking 2018

Table 1: Ranking LGBTIQ+ Index

	Country	LGBTIQ+
1	Malta	89.211472
2	Canada	75.002217
3	Belgium	67.842343
4	Colombia	61.077677
5	United Kingdom	58.954538
6	Norway	58.003483
7	Uruguay	55.514465
8	Chile	55.475806
9	France	55.351511
10	Israel	54.398391
11	United States	52.789432
12	Australia	48.065056
13	South Africa	42.427468
14	Mexico	39.245233
15	Brazil	38.359350
16	India	29.317679
17	Thailand	27.070607
18	Macedonia, FYR	24.557519
19	Belarus	20.137462
20	China	19.530868
21	Dominican Republic	18.080890
22	Botswana	17.977581
23	Turkey	16.650000
24	Paraguay	16.375000
25	Samoa	16.264932
26	Guatemala	16.125000
27	Latvia	14.694671
28	Nicaragua	14.646907
29	Jamaica	12.750000
30	Moldova	11.814422
31	Mozambique	10.502451
32	Russian Federation	9.815778

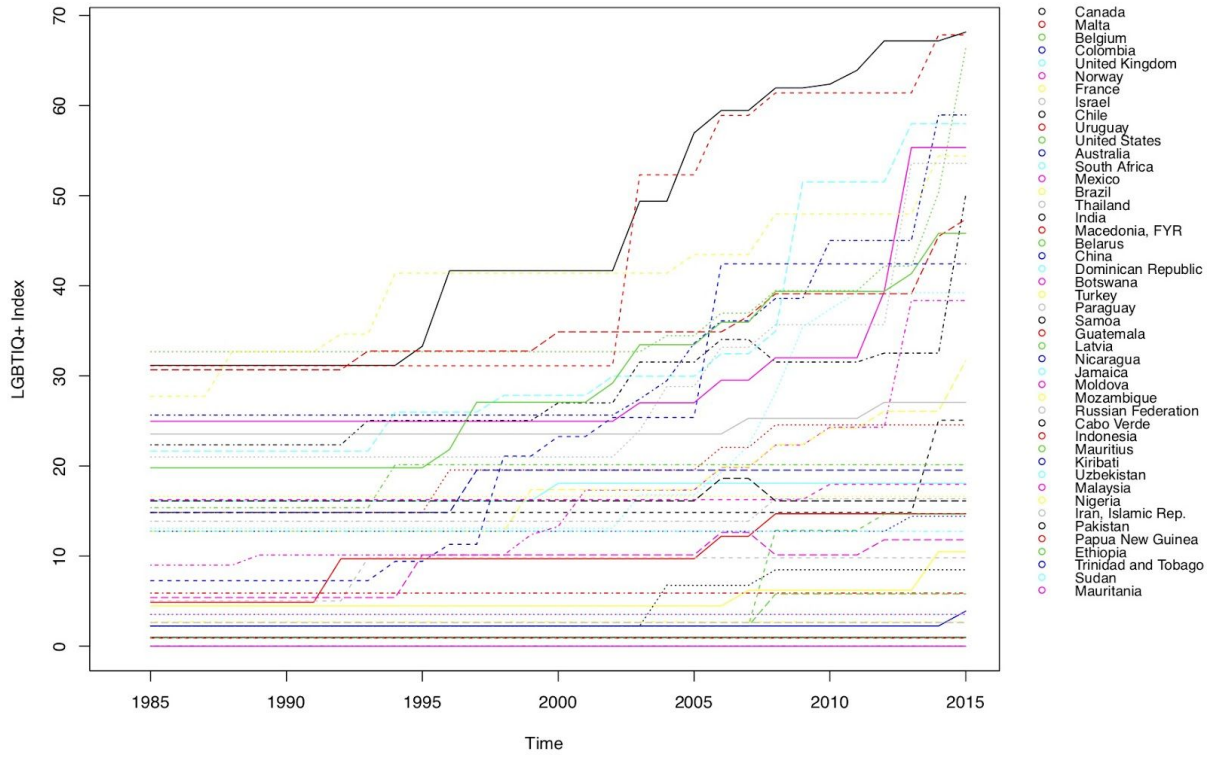
Table 2: Ranking LGBTIQ+ Index

	Country	LGBTIQ+
33	Cabo Verde	8.485054
34	Pakistan	7.220666
35	Indonesia	5.895960
36	Mauritius	5.808287
37	Trinidad and Tobago	4.229372
38	Kiribati	3.897088
39	Uzbekistan	3.525000
40	Malaysia	3.525000
41	Nigeria	2.700000
42	Iran, Islamic Rep.	2.625000
43	Papua New Guinea	0.900000
44	Ethiopia	0.900000
45	Sudan	0.000000
46	Mauritania	0.000000

The table above shows the most inclusive countries. Malta holds the first place as the Maltese government passed several very progressive LGBTIQ+ laws in 2017. The second most inclusive country is Canada. The lower end of the ranking consists of countries like Mauritania and Sudan. They are ranked very low because they punish being gay with the death penalty.

6.2. LGBTIQ+ Index Development

Figure 1: LGBTIQ+ Index Development 1985 – 2015



The previous subsection showed the level of inclusion at one point in time. However, inclusion can change over time, the graph above depicts that change in inclusion. Over the course of 30 years, the level of inclusion has been increasing for almost all the countries. Analyzing the upper end, Canada and France were already leading in the ’90s. Later in the 2000’ Malta caught up with Canada. At the lower end of the graph, there were no improvements; both Sudan and Mauritania always had the lowest possible value.

7. Multivariate Regression Analysis

7.1. Variable Selection

Countries such as Malta and Canada are leading the index, but what makes them so inclusive? There have to be variables that can explain inclusion. A technique to identify those variables is a multivariate regression model. But before we can run such a model, we have to find variables that could potentially explain inclusion. To limit the number of potential variables, I have set the following three criteria:

1. Is there a reasonable connection between LGBTIQ+ inclusion and the variable?
2. The variable should be increasing for more inclusive countries and vice versa.
3. The variable should be slowly increasing or decreasing rather than fluctuating over time.

The first and second arguments seem very self-explanatory, while the last argument requires further explanation. Looking at the LGBTIQ+ index over time helps to understand this issue. The index shows constant or slowly increasing growth and does not fluctuate. Just variables that show such a similar movement, such as GDP per capita, could be a good fit.

Having these three arguments in mind and with some macroeconomic background, one can already see that the leading countries - Canada, Malta, Belgium - have

certain common characteristics. They tend to be developed, urbanized, gender-inclusive, and highly educated. The next part explains why those and other variables could have an impact on inclusion.

7.1.1. Economic Development

The most popular used measurement for economic development is the gross domestic product (GDP). It captures the value of all goods and services produced in an economy. Using just GDP creates a problem. An economy with a high population has a significantly higher GDP. A better approach is the GDP per capita because it is population-adjusted (Blanchard and Johnson, 2012).

Recent studies have examined the relationship between GDP per capita and inclusion. The result was a strong correlation between both variables (Badgett, 2018). However, a simple correlation does not tell anything about causality. It can be the case, that other factors influence inclusion more than GDP per capita, and maybe it is just a coincidence that GDP per capita and inclusion correlate. However, there are theories justifying a causal relation, the Human Capital Approach and the Post Materialist demand for human rights (Badgett, 2014).

The Human Capital Approach states that letting LGBTIQ+ people gain a high level of education leads to an increase in their human capital. With a higher human capital, queer people can find skilled jobs with higher wages, resulting in a higher GDP per capita eventually.

The Post Materialist approach claims, with more economic security - higher GDP per capita -, people focus more on minority rights because they do not have to fight for survival anymore (Badgett, 2014).

Both approaches show the causality between GDP and inclusion; skilled queer people increase GDP per capita and high levels of GDP make the public fight for more inclusion.

7.1.2. Urban Areas

However, the Human Capital and the Post Materialist approaches do not completely explain inclusion. For example, countries like Colombia with a low GDP per capita, rank higher in the LGBTIQ+ index than countries with a high GDP per capita. This troubles the correlation between GDP and inclusion. There are examples that work the other way round. For instance, the United Arab Emirates (UAE) has a high GDP per Capita but the UAE has one of the lowest values in the LGBTIQ+ index.

Maybe variables other than GDP per capita can help to explain inclusion more appropriately. One such variable could be urbanization, it is measured by the percentage of the population living in urban areas. But why should urbanization affect inclusion? Could it be that in an urban society, people are more exposed to each other? One study showed that the interaction with a minority - in that paper refugees - builds social trust and makes a society more accepting. This could be

applicable to queer people, as well. For example, in urban areas, anyone could run into a transgender person on public transportation or at a coffee place. Those regular encounters with queer people should create more social trust in queer people (Smerdon, 2016).

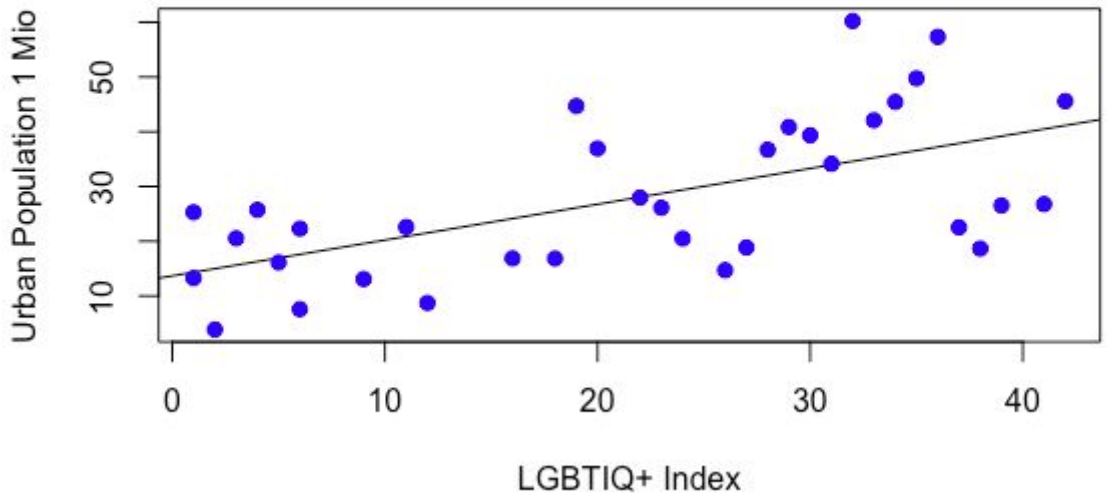
Another argument supporting the idea that urban society is more inclusive is the following. In urban areas, like-minded people can organize more easily and fight for their rights. A historic example of this is the stonewall riots in New York City. During the Stonewall Riots, transgender people of colour were fighting against oppression and police abuse (Faderman, 2015). Of course, the organization of like-minded people can also take place in other non-violent forms like lobbying. A good example of lobbying is the transgender associations (National Center for Transgender Equality and The National LGBT Bar Association) all located in Washington D.C., fighting for more inclusion.

The higher exposure of LGBTIQ+ and the ease to organize in urban areas make urbanization a good variable to explain inclusion.

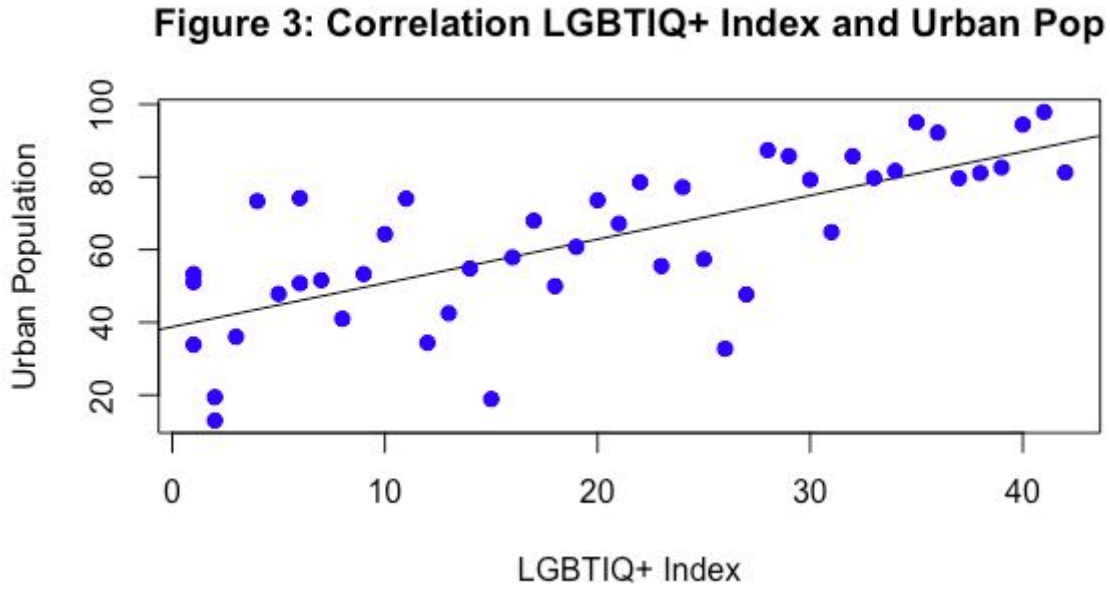
There are two different ways to measure urbanization. One way is the urban population as a percentage of the total population. Another way is the urban population in agglomerations with more than one million as a percentage to the total population.

The scatterplot below depicts the relation of urban population with more than one million on the LGBTIQ+ Index. Based on the scatterplot the relation looks rather linear than non-linear and the linear regression shows a fairly good fit. The LGBTIQ+ index is highly significant with a p-value of 0.000149 and an R-squared of 0.3465.

Figure 2: Correlation LGBTIQ+ Index and Urban Pop >1 Mio



However, a linear regression of the other variable, urban population on the LGBTIQ+ index delivers even better results, the scatterplot is depicted below. The p-value is more significant with 0.0000000144 and the corresponding R-squared with 0.5111 is higher, as well. Based on the higher R-squared, the variable urban population to the total population is a better fit than the other urban variable.



7.1.3. Migration

People move to other countries because of jobs, education or other reasons; creating a more diverse environment. Could migration be an indication of an inclusive country? If a society accepts one minority (migrants), why should they not support another minority (LGBTIQ+ people) or even the intersection of both; a gay Asian?

Migration is measured by migrant stock; a percentage of foreign-born people living in a society. To see if migration can actually explain, inclusion, the variable will be tested in the multivariate regression analysis.

7.1.4. Gender Equality and Education

The previous subsection highlighted the connection between migration and inclusion. However, having a large number of migrants in a country does not imply that they are included in every realm of society or have the same income as non-foreign born people. Some countries like Germany use migrants predominantly as a source of cheap labour, leaving migrants in low-income jobs. Whereas people who were born in a country might have a higher income than those migrants.

Having a wage inequality among foreign-born and in-born residents troubles the idea of inclusion; no one should be discriminated against on any grounds such as country of birth or sexual orientation. This makes migration a poor variable to explain inclusion.

It is challenging, finding another better variable measuring equality. However, there is another largely marginalized group; their inequality has been analyzed for decades, on topics such as gender wage gap or education, women. They could serve as a proxy to explain inclusion, once women have the same level of education and wage as men (assuming two genders), other minorities like gays and trans people might follow.

Thinking back to the human capital approach, stating through inclusion in education, more people are better qualified, resulting in better jobs with higher wages and more economic growth. Based on this approach, education is indeed a good variable.

As one minority -women- became included in society, shows the post-materialist approach is at work, as well. To recall the post-materialist approach, once there is no fight for survival, people focus on minority rights. As this economy moved to a post-materialist economy, people will keep focusing on minority rights for LGBTIQ+ people. This focus will eventually lead to inclusion for LGBTIQ+ people.

Based on both approaches education is a good variable to measure inclusion. Using available data, Female High School Enrollment is a good choice to measure education as it is available for every country.

7.1.5. Child mortality and Health

The postmaterialist approach says that, if a minimum of needs - for example, health needs - are satisfied, a society starts having a stronger focus on minority rights. A way to measure health is a country's child mortality rate. The assumption, the lower the mortality rate is, the stronger is the focus on minority rights. A stronger focus on minority rights comes with more LGBTIQ+ inclusion. The child mortality rate will be used in the regression analysis.

7.1.6. HIV Infection Rate

HIV is a widely spread disease in the LGBTIQ+ community and is even significantly higher than in straight cisgender communities (Whittington et al., 2012).

To reduce the HIV infection rate, governments took actions, they provided preventive HIV medication such as PEP and PrEP, leading to a decrease in the HIV infection rate. These actions definitely benefited the queer community because HIV is so widely-spread among queers. But does a lower HIV infection rate reflect inclusion, the multivariate analysis will answer this question (Hankins et al. 2015; Pretorius et al., 2010).

7.2. Data and Adjustments

The data source for this work is the World Bank and the Penn World Tables. All variables are based on the year 2015. For some countries values were missing, they have been replaced with Amelia 2.0 method.

7.3. Regression Results

Table 3: Regression Results

	Dependent variable:			
	LGBTIQ+ Index			
	(1)	(2)	(3)	(4)
HS Female Enrollment	0.178**	0.177***		0.134**
	(0.088)	(0.055)		(0.061)
Urban Population	0.211**	0.259***		0.243**
	(0.091)	(0.078)		(0.102)
Migration	0.310			
	(0.227)			
Mortality	0.018			
	(0.105)			
HIV	0.00001			
	(0.00001)			
GDP per Capita			0.001***	0.0002
			(0.0001)	(0.0001)
Constant	-11.907	-12.332***	11.195***	-10.414**
	(10.730)	(4.068)	(2.447)	(4.872)
Observations	46	46	43	43
R^2	0.634	0.615	0.382	0.618
Adjusted R^2	0.588	0.597	0.367	0.589
Note:				*p<0.1; **p<0.05; ***p<0.01

The first regression (I) explains the LGBTIQ+ index with the variables Urban Population, Migration, Female High School Enrollment rate, Child Mortality and HIV Infection Rate.

The variables Migration, Child Mortality and HIV Infection Rate show high p-values above 0.2 and are excluded in the preceding regression (2). In this regression Urban

population and female high school enrollment rate are highly significant. They can explain the level of inclusion very well. Based on the estimates, the level of inclusion rises by 0.061 for a 1 % increase in female high school enrollment and increases by 0.0821 for a 1 % increase in urban population.

One variable, economic development - measured by GDP per capita - has not yet been included in any regression. The reason is that the data for the first two regressions are based on data sources of the World Bank. By contrast, the GDP per capita data is provided by a different source, the Penn World Tables. The data from the Penn World Tables covers three countries less than the World Bank Data. However, this fact should not affect the quality of the data analysis.

Badgett, Park and Flores showed inclusion and GDP are correlated (Badgett, 2018). However, GDP per capita is not the best variable to explain inclusion, for more details, see chapter 6.2.1.2. Urban Areas. The regression (3) proves it statistically, even though GDP per capita is highly significant the corresponding R-squared, 0.3821 is lower than the one in regression (2) with 0.6072.

Maybe an IV regression including GDP per capita, female high school enrollment rate and urban population can deliver better results? However, this is not the case and GDP per capita is not even significant for this regression anymore. A reason could be multicollinearity among the variables, but the VIF is below the multicollinearity threshold of 3, therefore multicollinearity cannot be an issue either.

The regression (2) showing female high school enrollment rate and urban population can explain the level of inclusion most accurately.

8. Conclusion

Previous work has shown a strong correlation between GDP per capita and inclusion, however, this does not apply to all countries. For example, Saudi Arabia has a high GDP per capita, yet same-sex sexual acts are punishable by death. Hence, GDP per capita is a poor variable.

These findings show that inclusion may be explained by female high school enrolment rate and urban population, both of which showed more significance than GDP per capita. Female high school enrolment rate may reflect how well one marginalized group—women—is integrated into society, and other minorities such as queer people may follow suit. Urbanization could explain inclusion because, in cities, people are exposed to more minorities. Being exposed to different kinds of people may make the public more accepting.

This index could act as a starting point toward creating a global LGBTIQ+ index. Further research could include more than 46[JL1] [S2] countries and could test if female high school enrolment rate and urbanization are still valid in a larger data set.

9. Appendices

9.1. Appendix I: Weighting Transgender Laws, Interview with J.

Anti-Discrimination: 40 %

- Anti-Discrimination laws for the provision of goods 25 %
- Anti-Discrimination laws for employment protection 65 %
- Are hate crimes based on gender identity considered an aggravating circumstance 10 %

Gender marker: 30 %

- Change of gender marker by self-identification 100 %
- Change in gender marker requires psychiatric diagnosis 15 %
- Change in gender marker requires Gender Confirming Surgery 20 %
- Change in gender marker requires sterilization certificate 5 %
- Change in gender marker requires court order 60 %

Name: 15 %

- Change in name by self-identification (deed poll) 100 %
- Change in name by court order 25 %
- Change in name requires Gender Confirming Surgery 75 %

Costs of Surgery: 10%

- Health insurance covers costs, NGO, private clinics 100%

9.2. Appendix II: Weighting Transgender Laws, Interview with Carlos

Anti-Discrimination: 10 %

- Anti-Discrimination laws for the provision of goods 40 %
- Anti-Discrimination laws for employment protection 50 %
- Are hate crimes based on gender identity considered an aggravating circumstance 10 %

Gender marker: 30 %

- Change of gender marker by self-identification 30 %
- Change in gender marker requires psychiatric diagnosis 15 %
- Change in gender marker requires Gender Confirming Surgery 10 %
- Change in gender marker requires sterilization certificate 5 %
- Change in gender marker requires court order 20 %

Name: 40 %

- Change in name by self-identification (deed poll) 40 %
- Change in name by court order 15 %
- Change in name requires Gender Confirming Surgery 5 %

Costs of Surgery: 20 %

- Health insurance covers costs, NGO, private clinics 100 %

9.3. Appendix III: EMail with ViMÖ

Hallo Sascha,

danke fürs Kontaktieren. Das klingt interessant, schick uns gerne dann die Arbeit, damit wir auf sie aufmerksam machen können :-).

Also, die Fragen sind in Kürze schnell zu beantworten, aber es kann sich in den nächsten Monaten noch was tun. Daher antworte ich dir gerne auf Englisch etwas ausführlicher:

In June 2018 the Constitutional Court decided after verifying the Law of Civil Status that people with another gender (identity) than male or female have the right to a third gender marker option. Therefore no changes need to be taken within the law (as ruled in Germany e.g.), because it already applies. The Civil Registry Offices await instructions though from the Ministery of Interior since then. The Decision of the Constitutional Court is based on the article 8 of the European Convention of Human Rights (ECHR) which protects the individual gender identity and refers to the Recommendations of the Commitee of Bioethics, the Issue Paper "Human Rights and Intersex People" of the Council of Europe - Commissioner for Human Rights and "The fundamental rights situation of intersex people" of FRA amongst others. It also says that children with "variants in their sex development" especially need protection and that they should not be forced to a gender marker until they can know and decide themselves. It clarifies that sex development is not predictable and opposes unnecessary cosmetic interventions - often already in early childhood - just to assign someone to a binary classification.

The Constitutional Court verified the Law of Civil Status after the two-year-lasting legal process of Alex Jürgen*, an intersex activist, who filed for the correction of their birth certificate to the gender marker "inter", "diverse", "X" or similar or the deletion without replacement.

VIMÖ/OII Austria is happy with the decision of the Austrian Constitutional Court. It contains profound legal principles that can improve the legal, social and medical situation of intersex people and should also apply to trans people that do not define themselves as male or female.

But there are still two major concerns regarding the situation of intersex people in Austria:

As the development in Germany shows, we might expect a highly problematic implementation of the third gender marker option in Austria, too. The plan there and eventually here is, that only by providing a medical, certified letter, which means medical examinations and following diagnosis by doctors, an intersex person can get access to the third gender marker in their personal documents. This is (re-)traumatising and far from depathologisation. Not every variation is known or can be defined as such or moreover might even "count" as an variation of sex development - also non-binary people who are not intersex are denied their identity by such reglementations. We believe such criteria are legally incompatible with the decision of the Constitutional Court and expect further complaints if it will come to that.

Another question is, what will be the available term - Germany seems to implement "diverse", the Austrian Ministry of Interior might do the same.
Alex Jürgen* does not have their corrected birth certificate yet, but the Higher Administrative Court of Upper Austria already notified them and confirmed the correction.

Regarding IGM and other interventions:
We think that the necessity of hormonal and surgical interventions on intersex people will still solely be defined by the medical community, and not by fully-informed intersex people themselves, old enough to give consent. Intersex variations (so called Variants of Sex Development VSD or Differences/Disorders of Sex Development DSD) are often seen as rare respectively exclusive, isolated medical diagnoses concerning either men or women - they are still pathologised and listed in the ICD-10. Diverse medical indications based on that might not equal actual medical necessities to ensure basic essential bodily functions. We still demand a ban of non-consensual cosmetic sex-normalising interventions and we demand self-determination over the own body. Because until now there is no intersex specific legislation to prohibit these unnecessary interventions in Austria.

Peer-Support-Counselling still is unpaid work of VIMÖ/OII Austria as an human-rights-based association and advocacy group - but it is a crucial experience for intersex people and their families. We need legal changes, depathologisation,

peer-supported and positive education and communication about sex/gender diversity and finances for this work in Austria.

Also, prozentuell gewichten mag ich hier jetzt nicht, aber wenn es um nicht notwendige, geschlechtsverändernde Eingriffe ohne Zustimmung geht, hat der Kampf dagegen die höchste menschenrechtliche Prioriät!

Du kannst mich gerne mit allem oben zitieren und wenn es noch Fragen gibt, einfach schreiben :-).

Liebe Grüße,

Tinou

VIMÖ - Verein Intergeschlechtlicher Menschen Österreich

www.vimoe.at

Plattform Intersex Österreich

www.plattform-intersex.at

Am 2018-09-25 um 22:01 schrieb Sascha Beinert:

Hallo Tinou,

ich schreibe gerade an meiner Masterarbeit zum Thema "LGBTIQ+ Index" und hätte zwei Fragen an dich.

Ich möchte gerne Intersex in den Index inkludieren, hätte diese beiden Punkte ausgewählt:

- Is a third gender option available?
- Are unnecessary intersex surgeries banned?

Würdest du sagen, dass das die wichtigsten Punkte sind und wie würdest du sie prozentual gewichten? Ich schaue mir nämlich im Rahmen meiner Masterarbeit die Gesetze in unterschiedlichen Ländern an und erstelle anhand dessen einen Index.

Vielen Dank für deinen Input.

Liebe Grüße

Sascha Beinert, Er

9.4. Appendix IV: Overview LGBTIQ+ Index:

General: 5 %

- Did the country support LGBT rights in the General Assembly UN in 2008

  2.5 %

- Did the country support LGBT rights in the General Assembly UN in 2006

  2.5 %

Sexual Orientation 45 %

Decriminalization: 20 %

- *Are sexual acts legal among same-sex people? 15 %*
    - *Unenforced penalty 5 %*
        - *Imprisonment 2 %*
            - *Up to lifetime imprisonment 1 %*
                - Death penalty 0 %
- Are Age limits equal among hetero and homosexual acts equal 5 %

Anti-Discrimination: 35 %

- *Is discrimination based on sexual orientation constitutionally prohibited? 5 %*
- *Are hate crimes based on sexual orientation considered as an aggravating circumstance? 5 %*
- *Is discrimination in employment not allowed? 5 %*

- *Is discrimination in the provision of goods and services not allowed? 5 %*
- *Is conversion therapy banned? 5 %*

- Is the military service open to Gays and Lesbians? 5 %
- PrEP available as a Generic 5 % or
    - PrEP available as Truvada 2.5 %

Partnership and Family Recognition: 45 %

- *Can same-sex couples get legally married 35 % or*
    - *Can same-sex couples enter into a registered partnership or civil union? 15 %*
- *Can same-sex couples adopt jointly 5 %*
- *Can same-sex couples have a second parent adoption 5 %*

Transgender (Gender Identity): 30 %

Anti-Discrimination: 30 %

- *Protection for provision of goods and services 9 %*
- *Employment protection 18 %*
- *Are hate crimes based on gender identity considered an aggravating circumstance? 3 %*

Gender marker: 35%

- Is the change of gender marker possible by self-identification 35 % or

- Change in gender marker requires psychiatric diagnosis 8.75 % or
    - Change in gender marker requires GCS 7 % or
        - Change in gender marker requires sterilization certificate 1.75 %

Change in name 35%

- Change in name by self-identification 35 % or
    - Change in name requires Gender Confirming Surgery 1.75 %

Intersex 20%

Legal recognition: 100 %

- *Is a third gender option available? 20 %*
- *Are unnecessary intersex surgeries banned? 80 %*

Legend

Italic: Reward is static and dynamic

Not italic: Reward is just static

10. References

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