

2011

Assessing Language Value in the EU:

A New Approach to a Lingering
Barrier

IEPS – Master's Thesis

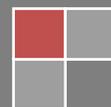


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Abstract

The European Union has a significant task in managing the issues which arise from having 23 official languages. Preferences for language are diverse as are abilities. Further despite EU efforts in promoting multilingualism some criticism still prevails. The European Monetary Union is seen through the barriers present to mobility and the realization of a optimum currency area. Data on over 130 countries is presented as well for an index and model of language value. Finally I propose a policy which works within the trilingual intentions of the EU while geared towards the economic incentives language can provide.

Introduction

For over 50 years the European Union (EU) has established itself as a pioneer in experimental economic and political integration by creating a working model to be studied, added to, and adjusted when necessary. Unity has been a gradual process since the creation of the European Coal and Steel Community (ECSC), and later the European Economic Community (EEC) and European Atomic Energy Community (EAEC) enacted through the Treaty of Rome in 1957. In a desired exit from the stark nationalism which divided the continent so severely for the preceding 60 years, the ideals of this community has been a move towards commonality, both politically and economically, and mutually beneficial cooperation. From its inception the EU has maintained consistent themes and approaches as to how to move forward, each treaty building within ideals birthed from previous treaties. With the desired outcome of a flexible unit that acts singularly, yet with respect to national sovereignty and national identity through the acknowledgement of, and respect for, the various cultural differences among its inhabitants.

During the process of integration, these cultural discrepancies have, at times, been an issue around which the EU has had to tiptoe carefully. In the year 2000 the EU adopted the slogan, "Unity in Diversity," as its motto and there is no doubt a great effort put forth by the EU to protect the unique cultural characteristics inherent to the individual Member States (Karoly, 1). It is a complex balance between integration and protection, but with the aims of a mobile market and economic cooperation, the two are often pitted against each other in a zero sum

game. One area where the European Union and its Member States have struggled to balance their aims is in its language policy.

The importance of language in the functioning of a modern globalized society should be apparent. Economically, politically, and socially, language is of vital importance in achieving the goals of not only integration in these three areas, but for facilitating social solidarity and the feeling of a Euro citizenship that the EU has itself promoted. This social cooperation is a major part of the foundation by which willing cooperation, both economically and politically, can hope to be achieved, and for success to be optimized. In order to fulfill the ideal the EU has created for itself, understanding how to handle the complex situation of language in creating successful policy is necessary.

It is not to say that the EU has ignored the power and importance of language. As we will see later the EU has dedicated time and resources into evaluating language. It has often communicated its desire to preserve the language diversity of the Union while improving the ability of citizens of all Member States to communicate with each other in hopes of cohesion and mobility. Current policy has proven inadequate, however, in achieving the goals of the EU. It has lacked the definition and vision needed to not only mitigate the complex dynamic of language in the EU, but to use it to the advantage of the EU and its Member States. The question should not become how do we manage our language problem, but how do we maximize a great natural resource?

It is my assertion that policy regarding the complex language situation of Europe is of utmost importance in solidifying the aims and identity of the European Union. Where the EU has previously been a leader in cooperative economic and political policy, it needs to become a leader in progressive cultural cooperation. While some may argue that cultural issues cannot be tackled without infringing upon the nations themselves I will only argue that with regard to a progressive language policy, this does not need to be the case. The EU needs a language policy as dynamic as the situation itself. If the EU intends to promote a single image politically and economically, it must not be afraid to ask for other concessions when limited and appropriate.

Over the course of this thesis design I will go in depth on a number of issues related to the importance of language and language policy in the European Union. In the first section, an overview of language in the European Union will be presented. From languages spoken and attitudes towards language, to actions taken by the EU their critics, a foundation will be laid to provide an understanding of the current language dynamic in Europe. In section two, this dynamic will be presented in terms of the economic aims of the European Union including a look at the EU as an Optimum Currency Area (OCA). In section three, both the language index and production formula will be unveiled to pinpoint current language value and speculate on the future production of languages across the globe. In the final section, I will use the information from section three to construct a progressive language policy which aligns the desired economic, political, and social agenda of the EU and with consideration and respect for the sovereignty and rooted history of the individual Member States

Part 1: An Overview of Language in the European Union

In the first section of this design, close attention will be paid to the fundamentals of language and language policy in the European Union. Initially I will examine the languages of Europe to determine exactly which languages are spoken most prevalently, as well as to gain an understanding of language preferences among the EU populace. Following will be a section dedicated to understanding how the European Union has received the importance of language thus far. As these concepts are crucial in understanding the later developments of this design a continuous review of literature as it pertains to each subsection is included. At the conclusion of this first section I will explore what academics have noted about the effectiveness or shortcomings of policy up until now.

Ia. Languages of the EU; Prevalence and Perception

The European Union is comprised of 27 Member States, 500 million people, 23 official languages, and nearly 60 other languages spoken by a total of 50 million people (EB 243, 2). As we will look at how language is officially incorporated into EU legal documents later on, it should be noted that official languages are adopted individually by the Member States and, as is the case with Turkish in Cypress, not every official language of a member state is necessarily an official language of the EU. In the case of multiple official languages, the member state must select which will be the working language with regard to dealings with the European Union. All EU sanctioned official languages are also working languages of the EU (European Commission,

2010). Below is a list of the members of the EU and their corresponding official language(s).

Bold languages are not official languages of the European Union. The list is compiled from the *Special Eurobarometer 243: Europeans and their Languages (2006)* and updated accordingly for languages added after the accession of 2007.

Member State	Official Language(s)
Austria	German
Belgium	Dutch, French, German
Bulgaria	Bulgarian
Cyprus	Turkish , Greek
Czech Republic	Czech, Slovak
Denmark	Danish
Estonia	Estonian
Finland	Finnish, Swedish
France	French
Germany	German
Greece	Greek
Hungary	Hungarian
Ireland	Irish
Italy	Italian
Latvia	Latvian
Lithuania	Lithuanian

Luxembourg	Luxembourgish , French, German
Malta	Maltese, English
Netherlands	Dutch
Poland	Polish
Portugal	Portuguese
Romania	Romanian
Slovakia	Slovak
Slovenia	Slovene
Spain	Spanish
Sweden	Swedish
United Kingdom	English

Regional and minority languages are also prevalent across the EU. While the vast majority of these receive no recognition by the EU, many find themselves given status at the national level. A good example is Catalan and Galician in Spain, which are given an official or co-official status in a number of the autonomous regions and are also labeled as recognized regional languages. Migrant languages must be accounted for as well. Languages such as Arabic, Hindi, Punjabi, Cantonese, Mandarin, and the Balkan languages have spread to many of the big cities of Europe, like London, which act as hubs for migrant communities.

According to *Eurobarometer (EB) 243*, German is the most heavily held first language among EU nationals at 18%, followed by English and Italian at 13% each (7). On the other end of the spectrum roughly half of the official languages of the EU are each spoken by 3% or less of the *total* EU population (D48a-b).

When it comes to foreign language speaking in the European Union there has been a significant movement towards the adoption of English and German as a second language. Also to consider with respect to eastern enlargement is the influence of Russian. Overall the *Eurobarometer 243* statistics demonstrated a vast improvement in Europeans' ability to communicate in a non-mother tongue. Compared to the *Eurobarometer 54.1* study of 2001, the 2004 study would show an increase of 9% for competency in a second language, all the way up to 56% across the EU. Further, the number of EU citizens surveyed who replied they had no second language competency fell from 47% to 44%. Once again it should be noted that changes reflected over the four years may be attributed to the language knowledge of the new Member States. Lithuania, Latvia, and Slovakia in particular were charted in the top five among Member States whose citizens are able to speak conversationally in at least one foreign language (EB 243, 8-9).

English is the most prevalent of the second languages held among EU citizens with 38% claiming at least a conversational proficiency. German and French both represent 14% of foreign language speakers across the continent. With respect to the study of 2001, these figures show an increase of 6% for English and German language ability and a 3% increase for French.

As mentioned previously, Russian has also emerged as a language factor in the EU. According to the data 7% of EU citizens are able to hold a conversation in Russian, trumping a significant number of official languages (Eurobarometer 243, pg.12).

Combining second language competency with native language statistics, English is the language known by the largest number of Europeans at 51%. German is the second most known language across the EU at 32%, with French 3rd at 26%. Following the big three are Italian (16%), Spanish (15%), and Polish (10%) (D48t).

Mirroring many of these statistics are the thoughts and beliefs held about language by citizens of the European Union. When asked in the *EB 243 (2006)* study about the perceived importance of having a second language, 83% considered the acquisition *useful*. Over half deemed the possession of a foreign language *very useful* (27). Once again there is a noticeable difference that can be seen in the current data from *EB 54.1* where only 72% of respondents considered the knowledge useful (27). This discrepancy can be in large part attributed to the addition of the ten new Member States. The distinction between the EU15 and the EU10, during which time Romania and Bulgaria were acceding countries, is a constant theme throughout the study as their differences in many regards are quite noticeable.

When it comes to which foreign language is perceived to be the most valuable, English is by far the top choice. Overall 68% of those surveyed replied that English was one of the two most important languages to learn in terms of one's career and personal development. Regressing to a national level the results are even more overwhelming as English tops the ballot

in 26 of the 29 states surveyed**. French and German once again are the other two most popular selections with 25% and 22% respectively. Spanish followed at 16%. In comparison to the findings of *EB 54.1 (2001)* the divide between German and French has decreased roughly 15%, emphasizing the new member sentiment. The high discrepancy in perceived language value between the EU15 and EU10 are noteworthy for some of the most common responses. In the context of the English language, that was not seen to be the case, however, as the results proved consistent with 72% of the new Member States and 68% of the old selecting English from the list (31). Below is a chart taken from page 31 of the *EB 243 (2006)* study which relates the difference of opinions among the old and new Member States for some of the most commonly learned and valued foreign languages. The complete results for all nations and relevant languages can be found on page 32 (*EB 243; 2006*).

QA2a: Which two languages, apart from your mother tongue, do you think are the most useful to know for your personal development and career?

<i>EB 243 / 64.3</i>	<i>EU10</i>	<i>EU15</i>
English	72%	68%
German	48%	17%
French	5%	23%
Spanish	2%	19%
Russian	10%	2%

The chart illustrates the polarity of these preferences through the breakdown of old and new Member States. While this segmentation provides a great macro-level basis for analysis, it is not, nor is it intended to be, necessarily true at the individual member state level. Most important in the increasing German selection are the additions of Slovakia (61%), Slovenia (61%), the Czech Republic (55%), and Hungary (55%). It is no surprise that these four countries already possess a large number of citizens who claim proficiency in German as well as large German ethnic populations. The same can also be said for the perceived value of Russian in Latvia (54%), Lithuania (50%), and Estonia (48%) as large numbers of migrant Russian speaking populations live in each (EB 243, 32).

Since later in this study possible policy initiatives will be constructed with this very same concept of value in mind, it is important to ascertain what useful information we can about the future of language in Europe and adjust future policy accordingly. Luckily we can visit the *EB 243 (2006)* study to look at further analysis and trends. In section 2.1.3 starting on page 33, Europeans are asked *which languages their children should learn* outside of their mother tongue. The results once again demonstrate the perceived value of English, as 77% of those surveyed selected the language from the list (33). Interestingly this figure is nearly 10% higher than the perceived utility of English for themselves in terms of personal and career development. If there is one consensus that can be drawn from the *EB 243* study that holds true across both old and new Member States, it is that English is vital now, and will be increasingly vital in the future. In fact, English was regarded as the most important language for their children to learn in all but three of the Member States including the United Kingdom and

Ireland, where it is the native language, as well as in Luxembourg where French is the second official language. The only nation surveyed which placed a greater importance on English for themselves than for their children was the candidate country of Turkey (33-34). Below is a chart I constructed which compares some of the more common responses. Statistics are taken directly from *EB 243 (2006)* pages 32 and 33.

Perceived language utility: Personal vs. Children (%)

Language	For self (EU25)	For children (EU25)
English	68%	77%
French	25%	33%
German	22%	28%
Spanish	16%	19%
Italian	3%	2%
Russian	3%	3%
Chinese	2%	2%

French and German were regarded as the second and third most valuable languages for children to learn at 33% and 28%, both higher than the value recorded for personal utility. Interestingly, Russian, while recorded at 3% for both parties, was perceived to be *less* important for children to learn than for the respondents themselves in heavily Russian influenced areas

like Latvia and Lithuania. The figure itself is not overwhelmingly high in and of itself, but understanding that Russian is not an official language, it is worthy to point out that the 3% tally across the EU is higher than the data would show for the majority of official languages. Overall the findings would suggest that language is deemed more critical in, and for, the development of Europe's youth; however, the value itself seems to be filtering towards a smaller core of languages (EB 243, 34).

With the variance in language and language preferences across the EU, it is no surprise that it has been difficult to construct policy which effectively aligns these preferences with the economic and political goals of Europe. With all of these variables it begs the questions: how does the EU intend to communicate with its subjects and vice versa? How will the language dynamic be managed? In the next section, 1b, I will look at the EU and its language policy, promotion, and ideals thus far.

1b. Language Policy of the EU: Aims and Programs

Upon the creation of the European Economic Community (1958) through the Treaty of Rome, language has been acknowledged as a factor that needs to be managed. The first regulation adopted by the Council would reflect that belief through what would come to be known later as the *language charter of the EU*. Initially this regulation addressed which languages would be official and working. Dutch, French, German, and Italian were the first four, and the charter has been adapted to include the languages of acceding Member States (Karoly, 131).

As of 2011 there are 23 official and working languages of the European Union. These provisions entitle the inhabitants of the individual Member States the right to address the EU institution in their native language, and receive a response in that same language. Also guaranteed is the translation of official EU legislation into all 23 working languages (EC, 2011). Each year the European Union spends roughly 300 million Euros on translation, approximately 1% of the annual EU budget (European Commission, 2010). Currently the responsibility for language policy resides with the Commissioner for Education, Training, Culture, and Multilingualism.

Language policy in the EU is very much a reflection of the underlying ideal: to function as one with respect for, and protection of, the sovereignty of the Member States. The official language policy of the European Union is *multilingualism* (EC, 2011); an attitude which seeks to enhance the lifelong learning of language, preserve the linguistic diversity of the member states, and foster an environment more conducive to political cooperation and economic success. One important discrepancy to point out is the difference between *institutional* and *noninstitutional* language policy. Karoly calls to a 2006 piece by Van Els, *The European Union, its Institutions and its Languages: Some Language Political Observations*, that institutional policy refers to the languages which are used by, and between members of, the EU institutions while noninstitutional addresses the manner by which the EU can influence language learning in the member states (Karoly, 133). Institutionally the EU has provided the services of translators for communication, and citizens are able to address concerns and receive a response in their language, provided it's one of the 23 official languages. The day to day languages used by the

institutions varies by these institutions. For some, this is a point of contention which we will see later. *Noninstitutionally*, the EU is only able to fund language programs and make them available to Member State constituents.

In reality there is no common language policy in the EU as the Member States are completely sovereign in that regard. Since 1992, the goal of a multi-linguistic EU is a populace that can speak two languages beyond their mother tongue, a vision the European Union works toward through various funded programs and studies. A lack of common language policy is not solely due to a lack of prioritization, but instead an inability to enact any legislative power. In this section we will look at the desired outcome of EU language policy and explore the programs and studies funded thus far.

1b.1. Aims of EU Language Policy

The EU has limited ability in terms of enacting language policy and is therefore relegated to facilitating a multilingual environment and encouraging the Member States to implement policy on their own. The goal of a multilingual Europe is vital in all spheres pertaining to the progression and success of the EU. Economically, politically, and socially, language plays an inherent role in solidifying its ideals and identity. In the European context multilingualism is not only the existence of many languages, but also the possession of multiple languages by individuals. Thus while efforts have been a building process, the EU has consistently demonstrated a commitment to equality and preservation of linguistic diversity. This was initially manifested in funding for research on protecting regional and minority languages with

the *Euromosaic Study* (1992). Despite an evolution of policy, there have remained issues which are consistently reinforced, and the protection of lingual diversity is one such case. With the limitations of legislation, the aims of EU efforts regarding language policy are informational and to enhance efforts made by Member States.

With the further addition of Member States and languages, the EU moved towards the encouragement of language for personal development and reasons beneficial to the success of the European Union. 2001 was proclaimed the *European Year of Languages* by the European Union, UNESCO, and the European Council for this very purpose (EC, 2011). Initiatives at the Member State level were intended to coincide with the declaration to bring attention to the importance of language at a national level.

In 2003 the Commission issued *Promoting Language Learning and Linguistic Diversity: An Action Plan 2004-2006* at request of the Education Council of the Member States (2). The plan focused on three main objectives (5.2):

I. Life-long Language Learning: 'Mother tongue plus two other languages': making an early start; Language Learning in secondary education and training; Language Learning in Higher Education; Adult language learning; Language Learners with special needs; Range of languages.

II. Better Language Teaching: The language-friendly school; The Languages Classroom; Language teacher training; Supply of language teachers; Training teachers of other subjects; Testing language skills.

III. Building A Language-Friendly Environment: An inclusive approach; Building language-friendly communities; Improving supply and take-up of language learning.

Of note is the emphasis on early language education, an integral part of the Action Plan. The Commission also makes reference to the importance of language learning in achieving its goal of becoming the most competitive knowledge-based economy in the world, as sought by the Lisbon Strategy of 2000 (1).

2005 brought *A New Framework Strategy for Multilingualism* from the Commission. It was the first time multilingualism would fall within the portfolio of a Commissioner (2). The study reinforced earlier sentiments and defined what role the Commission would play in the future. It addressed three specific aims of its multilingual policy. The first was to encourage learning and language diversity. The second was to promote a healthy economy. And finally to give access to information to all members in their languages for a more informed European Union. A 2008 resolution from the Council, *European Strategy for Multilingualism*, updates the 2005 framework and highlights further aims to stress language learning as a “cross-cutting” element aligning social, economics, and cultural interests(1). The new strategy asks the Commission to encourage Member States to “better promote multilingualism as a factor in the European economy’s competitiveness and people’s mobility and employment (3)”.

Multilingualism: as Asset for Europe and a Shared Commitment was also released in 2008 by the Commission. Similar to the “cross-cutting” function expressed before, the Commission offered this:

A concerted effort is required to ensure that, within existing resources, multilingualism is mainstreamed across a series of EU policy areas, including lifelong learning, employment, social inclusion, competitiveness, culture, youth and civil society, research and the media. The following chapters outline key aspects of this inclusive approach aimed at widening the scope of multilingualism... (5).

The aims of EU language policy have shifted gradually as the attempt to balance ideals with reality and efficiency has become more difficult. Initially the EU focused towards encouraging language diversity as a way of celebrating the many cultures of Europe. EU policy then transitioned to language as a life long learning tool to use for personal development. Later, policy aims of the EU would incorporate social cohesion, labor mobility and employment, global market competitiveness, equal access to opportunities, active political involvement, and even an acknowledgement that the diversity of languages can present obstacles counter to the ideals of the EU. Elements of these principles, especially with regards to lifelong learning, social cohesion, and a mobile market, can be seen in nearly every research study designed to express the desires of the EU in providing an environment conducive to language learning and protecting diversity.

1b.2. A Review of EU Funded Language Programs

The EU funds the protection of language diversity and facilitates a multilingual environment in a number of ways. In section 1a. we met the *Eurobarometer* studies and the amount of information generated by EU subsidized efforts. In 1b.1, further resources were made available to Member States as research efforts turned into policy suggestions and action plans for protecting and improving the multilingual dimension of the EU in the face of rapid change. Also noted were the high costs of translation. However the method by which the EU is actively engaged with inhabitants is through its sponsored programs.

The most heralded of these programs operated under the umbrella of the Socrates and Socrates II initiatives of the European Commission and responsibility of the European Commission for Education, Training, Culture, and Multiculturalism (Europa.eu; Socrates). Socrates was established in 1995 and lasted until 1999, when it was renewed as Socrates II. The Socrates program would last until 2007 when it was absorbed by the Lifelong Learning Program 2007-2013, still under the control of the Education, Training, Culture, and Multiculturalism Commission (Europa.eu; Socrates). According to the European Commission report, *Many tongues, one family; Languages in the European Union* (2004), approximately \$30 million Euro a year were reserved for language learning through various Socrates, and other, programs of the early 2000's (12). This figure is surprisingly low however. Socrates alone operated on roughly a 300 million Euro budget (Europa.eu; Socrates).

Socrates aimed to “increase mobility for students in higher education and to promote broad and intensive cooperation between institutions at all levels of education in every

Member State, and to realize their intellectual potential through the mobility of teaching staff” (Europa.eu; Socrates). Socrates II would expand on these principles and reformulate its aims (Europa.eu; Socrates II):

- to strengthen the European dimension in education at all levels;
- to improve knowledge of *foreign languages*;
- to promote cooperation and mobility in the field of education;
- to encourage the use of new technologies in education;
- to promote equal opportunities in all sectors of education.

The arm of Socrates specifically for language learning was known as Lingua. Lingua had been established in 1990 but was integrated into Socrates upon its inception in 1995 (Eur-Lex; Socrates). The program funded transnational projects incorporating both students and teachers to raise awareness for language diversity; encourage language learning, improve access to language learning, hone language teaching techniques, and supply language students with a variety of learning methods (European Commission 2004; 13). To accomplish these aims, Lingua introduced five actions, each with a different specialization. Actions A, B, and C all focused on promoting aspects of language teaching. Actions D and E concentrated more on students’ access to teaching and language tools (Eur-Lex; Socrates). Overall 150,000 language learners and teachers would be affected from 1995-1999, the reign of the first Socrates. During that time 3,000 language teachers would receive training in lesser spoken languages (Eur-Lex; Socrates). In a 1997 follow up report on the first two years of the Socrates program, the Commission would claim these, among other results (Europa.eu; Socrates):

- some 80,000 young people to participate in joint projects or language exchanges;
- 16,000 persons to take part in continuing training courses for language teachers;
- 3,500 joint language teaching projects to be implemented;
- 600 transnational projects, involving 2,700 establishments, to be implemented with a view to improving cooperation in the fields of open and distance learning, adult education, intercultural education, *language teaching* and initial and continuing training for teachers.

Lingua was not the only branch of Socrates which possessed a language dimension. The Erasmus program, which promotes the mobility of both teachers and students, also provides language training to help those in transition acclimate to their new environment. The sector known as Grundtvig, specializing in adult education and vocational training, provided foreign language teaching as one of their many offerings (European Commission 2004; 13-14).

Outside of Socrates, other Commission programs established language initiative as well. The Leo da Vinci program, aimed to strengthen the EU workforce through vocational training and education, funded transnational projects assessing the language need of businesses. The da Vinci program also paid for language training and the development of language tools. The Commission program, Culture 2000, translated over 3,000 literary works into the EU languages. Even the Commission's media program had a language dimension as it funded the dubbing and subtitles for European films airing across the continent on TV and in the cinema (European Commission, 2004).

Without the ability to exert power in the form of legislation the EU has proven a commitment to funding a wide range of programs with language learning in mind. As we saw in 1a., the EU has a diversity of native tongues, foreign language abilities, and language preferences. In 1b. we learned of efforts by the EU to protect linguist diversity, to facilitate language learning, and conduct research for the use of Member States in their sovereign language policies. There are some, however, who have expressed misgivings about policy, and in some cases, a lack of policy. In the next section we will look at theoretical framework of language policy as related to EU efforts, highlighting some of the most frequent criticisms.

1c: Criticism of Policy Efforts

Recently debates on the EU and promotion of certain language outcomes have become a point of contention for many. Robert Phillipson has become one of the more vocal members of a growing faction who is displeased. In his 2008 article, *Is there any diversity in language policies national and supranational? English as a lingua franca or lingua frankensteinia?*, a summary of a speech he gave to the European Federation of National Institutions for Language (EFNIL), he references numerous officials on record discussing the pressing matter that is language policy debate. “There is no more emotional topic in the EU than the language issue,” one said. “The topic is explosive,” said another (145). Discussions on, and criticism of, EU language policy centers around a few key notions. First, language policy is complex and as an emerging discipline, knowledge of best practice is often unknown. As a result there has been a faulty foundation for progress and a scarcity of research and emphasis at the EU level, even

with its legislative constraints, which need to be addressed. Second, many believe the EU needs to to adopt a *lingua franca* in some form whether institutional or Union wide. Lastly, that current language policy is not only undemocratic and misleading, but that the EU has refrained from pursuing language policy advancements when given the opportunity.

Karoly (2008) notes the complex situation's origin as a product of having roots in a range of fields, most notably applied linguistics, sociolinguistics, and political theory. It is this from a lack of prior experience in these prerequisite areas which give life to bouts of information asymmetry. A lack of consensus on key subjects and even more so a lack of clearly defined terminology has led to only subtle progress in language policy reforms (126). Karoly also points out that in an evolving field most definitions are fluid and the scope undefined (127). Phillipson (2008) similarly notes a same sense of systemic confusion:

Similarly, discussion of *EU language policy* is often muddled because it is unclear whether people are referring to different institutions, to speech or writing, to a document with or without legal force, to interaction between an EU institution and member states or citizens, etc. The term *working language* is used in several different senses. And when an EFNIL document states: 'Linguistic diversity is an essential characteristic of European identity', this is a very bold generalization to make about the citizens or legal systems of countries that have generally defined themselves monolingual for the past two centuries (147).

Phillipson (2008) makes a relevant point above, all while shedding light on an interesting topic as it pertains to this study. He references in the quote above that Member States have been primarily monolingual in the past and as such a forced sense of multilingual obligation is

being pushed upon them contrary to what has been, historically, pursued. It is relevant to point out this disconnect between EU solidification and identity ideals and the contributing cultures of the Member States. Perhaps more so when accessing reality and formulating future policy. Phillipson further addresses obstacles in creating effective supranational language policy on page 148-149, some of which address the aforementioned lack of foundation for improving the language situation:

- there are collisions of terminology (e.g. *lingua franca*, multilingualism, working language) in discourse (politics, media, business etc), and in distinct academic disciplines, as well as in different countries;
- the research community is small and scattered;
- language policy is politically untouchable at inter-governmental level;
- criteria for guiding equitable supranational language policy are under explored;
- journalistic coverage of language issues tends to be ill-informed;
- alternatives to market forces (the comparative advantage of English in the European linguistic market) and linguistic nationalism (e.g. Esperanto) are unexplored;

The final bullet above provides a nice transition into another heavily debated topic, a lack of an official *lingua franca* in the European Union. A *lingua franca* is best described as a language used to bridge communication between two parties not sharing a mother tongue. In the debate over the necessity of a *lingua franca* in the European Union a handful of options have emerged as policy makers decide how to decide which language(s) will be selected for use. The benefits of a *lingua franca* are concurrent with the benefits of any shared language except

where language is generally culturally representative. A lingua franca is ideally used for communication purposes only. Whether that is possible or not, at least if selecting a living language, is a subsequent argument.

Pia Vanting Christiansen's work *Language Policy in the European Union* (2006) evaluates future lingua franca policy efforts by indexing a number of suggestions outlined by previous language policy analysts. The policies highlighted by Christiansen represent the diversity in opinions among policy proposers. Among the many blueprints cited by Christiansen is one by Van Els (2000), whose model seeks multiple lingua francas but with restrictions against mother tongue use in communication by members of the EU institutions (33). This would supposedly consolidate the number of languages used by EU institutions while guarding against claims of mother tongue privilege, a major concern for language planners (36). The eighth scenario evaluated was proposed by Thiong'o wa Ngugi, in his work *Moving the Centre: The Struggle for Cultural Freedoms* (1993). Ngugi argues for the use of Swahili as a lingua franca and is the only example I came across which offered a living language outside of the EU's official group as a communicative tool. This vision will become extremely important as we move into parts three and four. Overall, claims of mother tongue privilege and feared contention over perceived language concessions can surely be attributed to a lack of movement in adopting a lingua franca among living languages.

Others have opted to promote a planned language, such as Esperanto, whose lack of origin appeals to those especially concerned about cultural ramifications of language policy.

Esperanto is a constructed language developed in 1887 by Dr. L. L. Zamenhof whose goal was to foster communication and shared experience through the addition of a neutral international language (uea.org). The language itself is of a diverse construction, adding to its appeal and ability to be understood according to the Universal Esperanto Association:

Esperanto is both a spoken and a written language. Its lexicon derives primarily from Western European languages, while its syntax and morphology display strong Slavic influences. Esperanto morphemes are invariant and almost infinitely combinable into many different words, so the language also has much in common with isolating languages like Chinese, while its internal word structure shows similarities with agglutinative languages such as Turkish, Swahili, and Japanese (uea.org).

According to the website Esperanto has affiliate organizations in 70 nations and is well represented in nations such as China, Brazil, Iran, and Cuba. Esperanto also has formal relations with the Council of Europe and the United Nations. In the Christiansen (2006) article we've looked at there are a number of proposed language policy he indexes before concluding with his remarks on the feasibility of Esperanto as the lingua franca of the European Union:

In the long term, however, the optimal policy alternative would be scenario 10, employing a planned language (such as Esperanto) as lingua franca and thereby contributing to establishing a democratic public sphere in the EU. Esperanto might further serve as relay language and as an internal working however, the optimal policy alternative would be scenario 10, employing a planned language (such as Esperanto) as lingua franca and thereby contributing to establishing a democratic public sphere in the EU. Esperanto might further serve as relay

language and as an internal working lingua franca and thereby contributing to establishing a democratic public sphere in the EU. Esperanto might further serve as relay language and as an internal working language for EU institutions. The EU's citizens and politicians could still employ one of their own states' official languages in their interaction with the Union, but speeches and documents would only be translated via the planned language (37-38).

Despite a lack of official franca in the EU, scholars have observed the English language's embodiment of that role in recent years. As we saw in the earlier segments of part one, English is the most widely spoke language in the EU, spoken the most as a second language, and is believed to be the most important for personal development. If languages were evaluated on a free market basis, unregulated and ever evolving, as is the more or less the case now, English would clearly be the language of choice as it has spanned the globe. Advocates of English cite this global dynamic alongside its flexibility and current prevalence of learning in the Member States. In light of these favorable characteristics, and the current cost of administrating translation, Anthony Pym suggests taking reality into account when weary of cultural backlash (8-9). Anderson et al. in, *An Administrative Lingua Franca within the EU* (1997), assumes English to be the best of all choices, while acknowledging no one perfect solution, for an administrative lingua franca. This should be highlighted for an administrative lingua franca would not beset directives on the Member States, but instead merely consolidate the working languages of EU institutions (7). Opponents of English as an official lingua franca cite the advantage that mother tongue speakers would have over non natives among the more common fears of *linguicide* and

language imperialism. The realities which Pym and other have brought to light are equally troublesome for another sect which is already dissatisfied with the hypocrisy of current policy.

The most overwhelming criticism of current policy comes from those who believe that the current system is a facade, allowing for the dominance of a select few languages while oppressing the rest. Robert Phillipson (2008) is one in particular who has been very critical of the emergence of English as a de facto lingua franca and the effect it has had on other Union languages:

There is a largely uncritical adoption of englishisation, English as the *lingua economica/Americana*. There is a rhetoric of language rights, some national and supranational implementation, advocacy of linguistic diversity, but much is left to market forces. States differ constitutionally (unitary, federal), in their cultures and educational philosophy (Bildung, skills ...) and in the extent to which they support minority languages (149).

Phillipson goes as far to say that the dominance of English is a factor of “EU subordination of US global ambitions” (150). While this may be somewhat dramatic, dissent from more level headed critics of the illusionary democratic language policy illustrate problems far more grounded in facts. Christiansen (2006) writes on several of these undemocratic processes as he alludes to the exclusivity of a small group of languages when it comes to certain newsletters, speech transcriptions, and information on language learning programs (29). Looking at the working languages of EU institutions, Karoly (2008) conveys the common use of only a few languages. The European Commission, for example, works in English, French, and

German. The Central Bank works only in English, and the Court of Justice only in French (132). Ahn (2007) suggests that EU language policy efforts are nothing more than symbolic. And perhaps it is true. In all retrospect the product of multilingualism is a designation of an official language by the member state for use EU wide. That is inherently counter to multilingualism as a side effect since it promotes a single language nationally. Phillipson (2008) once again is dissatisfied as funding for regional and minority languages have steadily decreased. He also raises the valid point of whether or not a proclaimed democratic and multilingual language policy can be called as such when there has been no commitment to translate into all languages (150, 152).

Phillipson (2008) asserts that misnomers surrounding the notion of democratic language policy are nothing new. He cites a dispute between whether to work in the German or Finnish language at an inter-ministerial meeting where the size of the German language out-muscled its smaller opponent even during the reign of a Finnish President (146). Further, he alluded that despite a shortage of legislative power, the EU has come up short when addressed on the possibility of strengthening language policy efforts. The European Parliament and Commission have had the opportunity to endorse a more innovative approach to the *Framework Strategy for Multilingualism* (2005), as well as support a new language agency in the commission, were rejected.

In part four we will look back at some of these common concerns around language policy, language selection, and a potential lingua franca in Europe, as the information is

considered for the purpose of my policy proposals. Next, in part two, language, labor mobility, and the idea of an optimum currency area (OCA) will be evaluated.

PART II: Language, Labor Mobility, and OCA's

In part one various fundamentals for understanding the complex language dynamic in Europe were displayed, intending to provide the reader with an array of information regarding the languages spoken and learning preferences, as well as policy efforts and the general popular sentiment. At this time a look at EU integration efforts and how they are affected by language barriers will be examined. To do this, it would be possible to focus our efforts on a number of situations and assess how language either helped or hurt the EU prototype. One such example would be to look at political activity, mainly voting habits of nationals during EU elections. A difference between national and EU elections might be seen in terms of a disconnect between inhabitants and the European Union, a lack of relevant information dispersed, or lack of inter-Member civil discourse, all of which are highlighted by language differences.

For the purpose of this research design, however, I will look at the theory behind economic integration in the European Union, especially the European Monetary Union (EMU), as I examine language and labor mobility, and the concept of an optimum currency area (OCA). Before analysis in that realm it is important to become more familiar with the EMU itself.

The European Monetary Union was the natural progression of economic and political integration and was created, through a building block type process, as the work of the Delors Commission, named for its architect and President of the European Commission, Jacques Delors. This commission initially formulated timetables for integration, discussed the reality of a

European system of central banking, examined necessary convergence criteria, and proposed a single European currency in the late 1980's. The Delors Report was released in 1989, and proposed a European Monetary Union that would evolve over three stages (European Commission: History of EMU).

The first stage involved the full liberalization of capital across Member States and established convergence criteria regarding ideal national debt, deficit, and currency stability. The initial period would go into effect in July of 1990, and the EMU would become part of EU law officially upon the signing of the Maastricht Treaty in 1992, and its ratification in 1993 (European Commission: History of EMU).

The second stage came into effect at the onset of 1994 and implemented various policies in moving towards the eventual goal of a common currency, including the European Monetary Institute (EMI), the precursor to the European Central Bank (ECB), which would replace the EMI in 1998. During the second stage the excessive deficit procedure, a predecessor and complement to the Stability and Growth Pact of 1997, would also be enacted to streamline macroeconomic principles across Member State economies setting standards for national debt and deficit in relation to GDP (European Commission: History of EMU).

The third and final stage would begin in January of 1999 with the introduction of the Euro, an effective beginning to a realized EMU. The first three years would be a period for adjustment and monitoring, without the actual use of the currency in the Member States. The Euro did replace the European Currency Unit, a currency basket previously used for accounting

within the Member States. In 2002 the Euro currency would enter circulation in the twelve Member States who were part of the EMU. The Euro is now used in seventeen Member States, known as the Eurozone (European Commission: The Euro).

With the creation of the EMU and fulfillment of its objective in creating a common currency it begs the question, for what benefits? Our look at tangible language barriers, and thus a need for more innovative policy, begins with the model behind the EMU, the theory of an optimum currency area.

2a. What is an Optimum Currency Area?

For the sake of simplicity, we will define an optimum currency area (OCA), sometimes referred to as an *optimal* currency area, as a region whose economic efforts would be maximized through the adoption of a single currency. Under this definition it is possible that a nation could be part of a larger currency area, and at the same time one nation could be made up of several smaller currency areas. Robert Mundell first brought to light the idea of an optimum currency area in his appropriately named piece, "*A Theory of Optimum Currency Areas*", published in 1961. The work is timely in its recognition of emerging economic integration and future possibilities. In addressing the need for such a study:

Certain parts of the world are undergoing processes of economic integration and disintegration, new experiments are being made, and a conception of what constitutes an optimal currency area can clarify the meanings of these experiments (657).

Mundell again makes reference to the evolving European economic community when he wonders, “supposing the Common Market countries proceed with their plans for an economic union, should these countries allow each national currency to fluctuate, or would a single currency be preferable? (657).” The foundation of Mundell’s theory is based upon the idea that a combination of internally fixed and externally floating exchange rates would allow for a central banking system that can manage both employment and inflation where conditions are sufficient. Mundell argued that under current systems, one where areas are comprised of different national currencies, surplus countries can benefit from leveling prices at the burden of unemployment in the deficit countries (659). In the context of a fixed exchange rate over all currency areas, full employment comes as an inflationary liability (659). It is for these reasons that, where conditions are optimal, a currency area displaying a fixed exchange intra-regionally while floating its currency against other currencies on a global level could enhance the overall economic activity. Any support for a flexible exchange system should be inspired by a regional currency, not a national one, understanding that a region is defined by factor mobility within and factor immobility outside could span many nations, be the size of a nation, or be one of multiple currency areas within a nation. A currency area whose economies would benefit more from the adoption of a uniform note more than it would suffer from the lack of control over internal adjustment is, as Mundell alludes to on page 660, what constitutes an optimum currency area.

Luca Ricci looks in depth at this cost benefit issue in her work, *A Model of an Optimum Currency Area*, written in 2008 for the International Monetary Fund (IMF). On the subject of

costs incurred by moving away from having separate flexible exchange rates, Ricci notes that flexible exchange rates can be effective in the short term in adjusting to asymmetric shocks, especially when domestic prices are not fully flexible and *pass through* is limited (2). Also noted is that often the alternative mechanisms for adjustment, such as labor mobility, can be difficult in assessing its cost and feasibility, thus making the transition from multiple floating currencies to a single fixed currency within an area risky (2). Ricci also points to *Bofinger (1994)*, whose analysis contends that asymmetric monetary shocks and disparities in domestic inflation levels are to be considered at the level of other criterion in assessing whether or not a currency area can be considered an OCA (Ricci, 3). As far as the benefits to adopting a single currency, Ricci references Mundell (1961) for a foundation. The benefits to adopting a single currency when conditions are optimal are plenty. Elimination of transaction costs and deadweight, more efficient accounting, and the elimination of uncertainty are among the most heavily cited (3). Deadweight refers to the money lost in an exchange transaction to fees or spread, and can become extremely costly when involved in large financial transactions. Certainly the mobility of capital as a criterion for an OCA, as we will see shortly, can be tied in here as well. In terms of reliable accounting, it is perhaps the largest beneficiary of a reduction in monetary value uncertainty, as Ricci references on page three.

The question then becomes how to define optimum criteria, that is, how to define the necessary conditions for a currency area to necessitate a single currency. Mundell (1961) believes it is this question which is the most important, as the case of OCA's are matters of fit, not a matter of theoretical existence. While other authors would focus the benefits of optimum

currency areas around enhancements to trade and reduced transaction costs, Mundell introduced the OCA as a stability mechanism. He first makes the assumption that economic integration must follow political integration, and as currencies have been attributed to national sovereignty in the past, it his belief that only a transitioning area would have the platform for such an economic reorganization. He also refers to necessary conditions of high labor and capital mobility, and points at the damage which can be done when regions with high factor mobility and similar business cycles operate on separate national currencies (664).

Over the next generations, and as economic integration led to more favorable conditions for the adoption of a single currency in multinational regions, further studies and developments of OCA's became prevalent. Nowhere is this illustrated more than Frankl and Rose's 1997 title, *The Endogeneity of Optimum Currency Area Criteria*. The paper reflects thirty years of data collected by the authors and demonstrates how optimal factors are largely an output of existence within the system. In the case of their data, a study of EU member states awaiting the introduction of the Euro, integration had already been seen to produce a correlation between trade integration and similar business cycles among nations, reinforcing Mundell's belief that nations integration prior to the adoption of a single currency would be favorable, yet also differing in that their existence in the Common Market had facilitated the two criteria conditions and were not preexistent to successful integration. In their assessment of the OCA paradigm, Frankl and Rose index the optimal criteria for a single currency area as established by Mundell and other OCA developers over the previous 30 years. While their study only looks at the relationship between the first two, Frankl and Rose cite four criteria

which members of a region must share for it to be considered an OCA, and thus beneficiaries of the reduced costs of a single currency (3):

1. High Extent of Trade and Capital Mobility
2. Similarity of Shocks and Cycle
3. High Degree of Labor Mobility
4. Existence of a Risk Sharing System for Financial Transfers

Another often-sighted criterion is product diversification among Member States (Kenan, 1969). When looking at the list of criteria, it is possible to see where language might have an impact on the functioning of a currency area, especially within bullets one and three. Important to remember as well is Mundell's assertion that monetary unions that do not match the criteria of an OCA would be better off as separate currency areas based on internal factor mobility, external factor immobility, and a floating exchange rate (664). As we move forward and refocus on language implications, labor mobility and trade in the EU will be examined in depth with an emphasis on the importance of language policy in fulfilling the criteria of an OCA, and thus enhancing the utility of Eurozone membership.

2b. Language and Labor Mobility in the EU

In part one we looked at a number of studies done by the European Union institutions, as well as their funded programs, for the enhancement of language speaking throughout the European Union. Common in both the suggestions and aims of the studies, as well as the objectives of their programs, were to enhance labor mobility in the EU. We also saw that as time moved forward an increasingly larger emphasis was put on language as a tool for the

economic success of the European Union. Addressing Mundell's (1961) criterion for an optimum currency area, the economic theory behind the development of the EMU, it is no surprise that we see labor mobility listed. As Ricci (2008) would tell us later, these factors combine to determine the costs and gains of moving towards a single currency (2).

With that in mind, we must discuss the importance of common language for labor mobility. As studies of this kind are not fully developed at this point, quantitative data correlating language and mobility patterns is difficult to find. Nevertheless, in almost any study or research on labor mobility, inhabitants will cite language difference, sometimes as part of a larger cultural theme, as one of the main barriers. The transferability of certifications and qualifications can be made difficult. Finding jobs through a medium that is available in one's language may also be nearly impossible. Preoccupation over the signing of legal and financial documents may also be a possible deterrent of leaving one's nation, intensified by the unfamiliarity of a new language. These are among the many reoccurring themes.

In 2002, the European Commission conducted a study similar to those EU studies we examined in part one. Titled *The Action Plan For Skills and Mobility*, this study listed language differences as a main factor to low labor mobility in the EU (10). Pavan (2004) echoes those sentiments in *Labor Mobility in the EU*. He lists language differences as one of the eight main barriers (4). From a brief glance at the remainder of his list, it appears that language could play a large part in the complexity and uncertainty of at least a few of the other listed obstructions. Pertinent to our study, and a point made early on, is the integration of economics and politics

at the assumed expense of culture and the hesitancy of the EU to ask for cultural concessions when applicable. Shah and Long (2007), in, *Labour mobility and the mutual recognition of skills and qualifications: European Union and Austria*, mirrors this assertion:

Differences in culture and language add diversity and richness to European societies but they are also significant barriers to labour mobility. In spite of an increasing number of EU citizens who are multi-lingual, language is still one of the most significant barriers to mobility...The answers to these questions [regarding language solutions] are complex given the very high priority that the European Commission places on the protection of all European languages and the importance of the national identity through language for each member state (5).

Di Gessel and Janssen (2000) study regional labor mobility at the German and Dutch border. Findings conclude that when all other obstacles subside, including personal motivation, the lingual barriers and cultural ties persist, keeping mobility low (74). Peixoto (2002) offers a similar conclusion from his study regarding the mobility of more highly educated and highly skilled workers in the EU. His findings demonstrate that even where administrative and skill recognition problems have been abolished, the issue of language still looms large (Peixoto, 44). Thunnissen (2010), covered below, notes that language adds a significant cost to the investment personified by a transnational move. In his cost benefit analysis, language proves a large cost and a negative externality to mobility (XX). Tassinopoulos and Werner (1999) argue that the current scarcity of labor mobility in the EU has very little to do with the bureaucratic and legal fears that are often perceived to influence nationals to stay home. Instead, the lingual

and cultural aspects have now emerged at the top of the list (XX). Thunnissen (2010) references Linda Hantrais (2007), who found that the deterioration of all other obstacles through political and economic integration had not led to an increase in cross border mobility. This displays, almost by default, a disregard of persisting cultural and lingual forces that often prevent adjustment (Thunnissen, 2010: 36).

Knowing that language plays a significant role in labor mobility, to what degree is labor mobile in the European Union? Language skills are weak for working aged Europeans, and as language is often cited as a main barrier, we would expect that labor mobility in the EU would be low as well. In this case the logical conclusion is also the correct one as EU labor mobility is by all accounts, low. When addressing the conditions of Western Europe in legitimizing an OCA, Mundell (1961) listed low levels of labor mobility as a reason for its poor fit (661). Barry Eichengreen (1991) writes in his paper, *Is Europe an Optimum Currency Area?*, that Europe does not represent an OCA and cites labor mobility as a significant factor, lagging far behind the mobility of workers in the USA (24).

In the theory of OCA's, the movement towards a single currency is inspired by the ability of its factors to adjust to economic disturbances, thus relinquishing the need to float separate currency against neighbors. Cavelaars and Hessel (2007) examine labor mobility as a regional adjustment mechanism, and findings are concurrent with the consensus of low overall mobility within the European Union (3). Their most important finding, however, is that labor mobility in the EU has not generally been driven by economic differences, and thus hasn't acted as an

adjustment mechanism (5). According to their data of selected areas, migration after one year was only three percent of the unemployment difference between these areas (5). More pertinent findings from Cavelaars and Hessel (2007) on overall data collected from the 38 measured regions from 1996 until 1999:

Gross migration flows between regions in the same country are in the order of 1.5 to 2% of population, depending on whether the UK regions (for which no cross-border migration data are available) are included. See Table 1.

International arrivals are 0.6% of the population. Based on another source, we estimate that around 75% of international arrivals are from outside the European Union, implying that migration between EU countries amounts to only 0.15% of population (*Regional Labour Mobility in the European Union: Adjustment Mechanism or Disturbance?*, 3).

Extrapolating on the lack of national mobility, as portrayed by the 1.5 to 2% statistic displayed above, arguments that legal and administrative barriers are no longer restricting mobility to an abnormal extent are at least partially negated. This, of course, assumes that cultural and lingual barriers do not pose serious concern for national mobility, an assumption that arguably has its shortcomings.

A 2002 study by the European Commission, *Commission's Action Plan for skills and mobility*, centers around low occupational and geographic mobility and its detriment to the Union both economically and socially. The EC found that in 2000, 0.1 percent of the population changed residences to another Member State. Thunnissen (2010) references a similar low figure taken from *Employment in Europe 2009*, another European Commission publication.

According to the 2009 study, only 2% of EU nationals work in another Member State (Thunnissen, 26).

Referenced above, Simon Thunnissen provides us with *Labor Mobility in the EU: An Analysis of the Barriers to the Free Movement of Labor in the EU*, in 2010. While Thunnissen finds language to be among the most active contributors to an immobile EU labor force (13), his findings on labor mobility within the EU are strikingly low. Thunnissen uses information generated by Eurostat for the European Commission in 2006 to provide a very useful chart on the percentage of labor force comprised of nationals, other EU nationals, and nationals outside the EU (27). According to labor force statistics in 2005, outside of Luxembourg, no EU country had more than six percent of its working age residents represented by other EU nations. One other noticeable characteristic is that the percentage of residents from outside the EU is frequently four to five times larger, and sometimes higher, than the percentage of other EU nationals (27). Related to language, Thunnissen (2010) also references Tassinopoulos and Werner (1999), who argue that the current scarcity of labor mobility in the EU has very little to do with the bureaucratic and legal fears often perceived to influence nationals to stay home. Instead, it is the lingual and cultural aspects that have now emerged at the top of the list (Thunnissen, 34).

As we conclude section two of this study we have seen the economic theory behind monetary unions during our look at optimum currency areas. We also saw the importance of labor mobility to the performance of an OCA during the analysis of OCA criterion. Further

information related to the importance of language in enhancing labor mobility, while looking at labor mobility within the European Union, was presented. It is important to remember that high labor mobility is not the only characteristic of an optimum currency area, very much in the same way that language barriers are not the only obstacles to labor mobility. Linda Hantrais, who was referenced earlier by Thunnissen (2010), examines labor mobility and finds six remaining contributors to restricted EU labor mobility on page 220 of her piece, *Social Policy in the European Union (2007)*;

1. Lack of transferability of social security rights
2. education, training, and recruitment
3. job information and access to employment
4. public sector employment
5. language and culture
6. personal and family reasons

Despite this list of inhibitors, Hantais concedes that the persisting problems have more to do with lingering cultural and lingual barriers as others have eroded (224). Even looking at the other criterion, how many of them would be made easier with common language in some capacity? Certainly access to employment would be dramatically increased. In regard to pension transferability, is it possible that language merely restricts workers' abilities to gather all the necessary information? As mentioned directly above, access to information is already listed criterion, so perhaps language acts more as a spiraling effect encompassing a number of contexts. Treating language as a solitary actor is negligent of the trickle down effect it has into

other areas. At the same time, it is not the assertion of this thesis that the elimination of language barriers will inherently seal all other cracks.

In sections three and four this information will be important to keep in mind as language value in a global context is examined. In order to construct relevant and progressive EU language policy it is important to have an understanding of which languages are the most relevant around the globe. In part three I will introduce both The Language Value Index, as well as the Future Language Production Formula in the hopes of using the information derived to inspire a more dynamic EU language policy in the future. A proposal designed specifically for the objectives of the European Union is the basis of section four.

Part 3: Models for Language Value and Future Production

If, in theory, the European Union were given the ability by Member States to streamline language policy with the goals of economic and political integration, a uniform second language would be ideal for a more efficient EMU. The first step would naturally involve coming to a consensus regarding which language to promote. Voices on language selection for a potential lingua franca have certainly been heard, and there seems to be a disconnect between actual preferences and the intense fear of cultural backlash when concessions of any kind are proposed in that realm. Similarly, the EU has been accused of lacking initiative when granted an opportunity to make an impact by the Member States.

Now let's pretend that cultural barriers to legislation are nonexistent and thus there is no objection to an efficiency based language solution. Which language then would be the most optimal solution, or, which languages would be most preferable to teach as a second language? Even if the EU were granted no such ability to legislate, which languages might be ideal for individual Member States to incorporate into their language policies? Assuming there is a way of creating a hierarchy of languages based on objective criteria for creating policy from a purely economic standpoint, how might one go about assessing value? These questions act as a basis for the two models I have created: The Language Value Index, and The Language Production Formula.

3a. Purpose

Through my research I had seen no quantitative way of determining the economic impact of global language populations and it is my goal that the model will allow for further discussion and interest in the subject, creating more open-minded and innovative ideas for the creation of future policy. It is my hope that through this analysis, people will expand their capacity to think of language as a way of mobilizing citizens, mitigating risk, and establishing worthwhile relationships globally. The Language Value Index is a way of comparing different language worlds against each other, analyzed from a number of standpoints to be seen and judged individually. On the other hand, The Language Production Formula is a way of looking at output against population and modified through other measurements. These models are not meant to prove which language worlds are necessarily most dominant in size or sheer production, but instead which are the best fits for the inclusion in policy based on economic goals, and to an extent, reality as well. Knowledge of a foreign language is a perquisite to international mobility and thus key in the solidification of an efficient EMU whose adjustments mechanisms must outperform the downsides to an internally fixed, externally floated rate. The purpose of the models I have created is in understanding language value for the inclusion in EU policy to be seen in part four. In the modern global climate it is imperative that new ways of thinking about language policy are explored, even if that means challenging some of the more commonly held notions of right and wrong within the discipline.

3b. Methodology 1: Definitions and Variables

Determining the manner in which languages would be assessed value for their global relevancy centers around three main factors. First, language value must consider the size of the language populace, taking into account the scope of territory the language reaches. Second, production of the language population is of utmost importance and must be viewed as a high priority. Finally, the quality of the institutions and access to partnerships within language populations must be evaluated at some level. In this study, quantitative measures are used to answer qualitatively focused questions centered on how to assess language value for selection in future policy.

In the models I use *language world* to mean the collective nations where the given language is considered an official language. Understanding this is pertinent to the rest of the study as the term is used frequently, and in the model as well. To collect data for the Language Value Index and Production Formula I decided on seven measurables which would be used to assess the eight languages chosen to study. The categories:

1. Population Base
2. Population Growth
3. Gross Domestic Product (GDP)
4. Foreign Direct Investment (FDI)
5. Literacy
6. Index of Economic Freedom

7. Global Reach

1) Population base should not be confused with the number of total language speakers.

Using population base instead of the total number of speakers allows one to incorporate the capacity to which a language is supported by institutions and accessible under the rule of law.

2) Concurrently, population growth is measured across each nation, and then averaged across the entire language world. 3) Gross domestic product (GDP) acts as a collective measurement of economic output across an entire language speaking population by totaling the GDP amounts of the individual nations. GDP differs from gross national product (GNP) in that companies owned by foreign investors on home soil are counted, whereas GNP refers to production in terms of ownership and not physical location. GDP can be described as the total value of goods and services produced within national boundaries measured over a given time. When coupled with high FDI rates, figures should indicate favorable settings to invest, as well as be indicative of a language world who is investing globally. 4) FDI provides information on which language nations are harboring, and providing, the greatest amount of international investment. Once again this should reinforce the effects of national institutions in dictating economic activity. This is because of the dual nature of FDI which measures both inflow and outflow and combines into a single figure measured as a collected stock worldwide. 5) Literacy is important in determining the capabilities of the population bases to be productive and engage in mutually beneficial relationships. It also speaks to the quality of government educational systems. 6) Finally, the Index of Economic Freedom (IEF) is used to emphasize the importance of strong institutions and

favorable conditions within areas. The IEF was created by The Heritage Foundation and measures 10 different economic areas from corruption and government spending to business and monetary freedom (heritage.org). It is my estimation that the IEF is a good representation of sustainability in terms of infrastructure. A nation with a strong IEF rating is assumed to provide conditions necessary for attracting investment and a higher standard of living. 7) The global reach measurement is merely the number of continents where the language is official over the total number of continents excluding Antarctica. For the purposes of the Language Production Formula I created a statistic representing the total stock of FDI by a language world over its collective annual GDP.

I chose eight language populations to assess using these variables, and in the case of the Future Language Production Model, fixed variables as well over a given time period. The eight languages I selected were based upon both application within the European Union and current global significance. The languages selected are wide in their reach, with all six populated continents in play. On one hand we look at English, which is represented on multiple continents and over 30 nations, and at the same time we look at Mandarin and Hindi which are very centrally located but who possess other intricacies appealing for possible language inclusion in policy. The eight language worlds used to test the models were:

1. English
2. Mandarin
3. Hindi
4. Arabic

5. German
6. French
7. Spanish
8. Russian

Each language world was evaluated in each nation where it is official and examined in terms of each of the variables. More than 130 nations were represented by the eight language worlds. For figures that were unknown, the average of the rest of the language world was used, except within FDI where a lower total was assigned based on similar nations in terms of GDP and IEF.

If committed to an equitable policy where one evaluates language worlds in terms of GDP, FDI, population base, economic freedom, literacy, and so on, then perhaps we can determine which languages are best to integrate in policy based on facilitating investment opportunities, mobility, and logistics. Large collective population bases allow us to see the greatest number of people living where the language is protected under law, by institutions, and access to government in that language is guaranteed. Where FDI is strong, money is flowing in and moving out, and thus language can act as a way of both attracting, and offering, potential investment. Further, the ability to do business in the language of a flourishing area allows for a competitive advantage and a reduction in costs. The IEF stats allow us to incorporate sound institutions and infrastructure. A language world with a higher IEF means more nations who have favorable conditions and thus are more likely to be a partner in some way, shape, or form. It is also possible to see IEF as a quasi-measure of sustainability. Language

worlds with an overall high GDP may signal, when coupled with high IEF and literacy, the most attractive language to learn based on the most number of outlets for mobility and investment. At the same time a language world with high literacy rates offers a network of specialized labor in diversified industries and whose land mass harbors different resources to explore, especially among those whose nations are distributed across multiple continents. For governments, using language as a tool of attraction allows for less of a dependence on domestic markets in terms of keeping people employed and capital coming in. Consider a South American nation, for example, Chile, who decides to learn French as a 2nd language. Not only does Chile now have access to two major EU markets, France and Spain, but she may also explore development partnerships in Africa and Canada with sizeable leverage and minimized costs. In part four, a language policy with these factors in mind will be tailored to the European Union.

3c. Methodology II: Modeling

Language Value Index

The Language Value Index is a point system I created to assess current language value based on the aforementioned seven variables. The system is based on the hierarchy of languages in each measured area, with the highest value given the highest total of points in that section. Over 130 countries from eight languages worlds were measured and compiled to come up with a total value across the eight populations. The breakdown of points is as follows;

	FDI (\$ billions)	GDP (\$ billions)	IEF (%)	Literacy (%)	Population Base	Pop Growth (%)	Global Reach (x/6)	Min/max and total
1 st	8	8	8	8	8	7	7	54 max
2 nd	6	6	6	6	6	5	5	
3 rd	4	4	4	4	4	4	4	
4 th	3	3	3	3	3	3	3	
5 th	3	3	3	3	3	2	2	
6 th	2	2	2	2	2	2	2	
7 th	2	2	2	2	2	1	1	
8 th	1	1	1	1	1	1	1	8 min
Total points	30	30	30	30	30	25	25	=200

In the case of ties, the points for the relevant positions will be totaled and split evenly.

The index is useful as a simple measurement technique looking at the measures separately and then combining the value into one. No single variable is pit against another, and high values

across the board are concretely beneficial. But what if we were interested in looking at production per capita, with figures being strengthened or weakened by the interplay of other factors? At the same time, could one use such a model to see which languages would be the most advantageous to learn in the future based on these interactions between production, outlets, and conditions? With the Future Language Production Formula I attempt to satisfy these questions.

Future Language Production Formula

Using the initial idea of weighted production divided by weighted population I wanted to see how each language world stacked up against one another in terms of a GDP per capita type statistic. The outcome is useful in language adoption for policy purposes from an economic standpoint. It should be acknowledged that this is not intended to be the sole determiner of which language is necessarily best. Instead it is one piece of information to be considered alongside the realities and preferences of the state or collective body. Using the same variables and data from above I express language production per capita through the following equation:

$$FLP(x) = \frac{[Bb_t + (Cc_t \times G)] \times E}{[Aa_t \times D]} \times F$$

Where:

Variable	Statistic	Expressed as
FLP(x)	Future per capita production of language world (x)	See above
x	Language world	$x = \sum x_i$
B	GDP	$B(x) = \sum B_i$

b	GDP growth (fixed)	%
C	FDI	$C(x) = \sum C_i$
c	FDI growth (fixed)	%
A	Population Base	$A(x) = \sum A_i$
a	Population Growth (%)	$a(x) = \sum a_i / x_{in}$
D	Converted Literacy	$D(x) = \frac{1 + \sum (100 - D_i)}{x_{in}}$
E	IEF (0-100)	%
F	Global Reach	$F(x) = .7 + (.05x_z)$
G	FDI as % of GDP	$G(x) = C(x) / B(x)$
i	Individual country of language world (x)	$(x)_i$
n	Total number of nations represented in language world (x)	$(x)_{in}$
t	Time (years)	(0, 1...2...3)
z	Continents reached by language world (x)	$(x)_z$

Looking more closely at the model we see a measure of production and investment on top, with population in the denominator. Variables E and F are a matter of weakening, or strengthening through minimal weakening comparatively, the operations on the left side of the formula. The higher the IEF (E) total and wider the Global Reach (F) the more the value remains the same. Low averages across E and F in language worlds subject the total value to significant reduction. The majority of the expressions are straightforward; however a few clarifications should be made. First, variables b and c are fixed growth figures for time (t) to see how the results change when plugging in various rates. Second, converted literacy, variable D, is expressed as a figure greater than one so that populations which have low literacy rates are subject to a higher multiplier in the denominator, thus reducing their production per capita

figures. High literacy has the opposite effect, promising a minimal multiplier and thus a higher production per capita total. Some may wonder why FDI is calculated alongside GDP when the figure should be encompassed, at least in terms of inward flow, by the GDP statistic. This is done to curb high production figures where institutional barriers would prevent common language from achieving the desired outcomes.

The overall numbers produced are similar figures to GDP per capita across the entire language world, except for reasserting an FDI on top of GDP, and modified by the depth of skilled labor (literacy) and quality of their institutions and collective domestic conditions (IEF). It is my assertion that languages which finish at the top are the most attractive to align with in policy moving forward. At the same time, certain attributes of language worlds, as we will see in the index, may be appealing for deciding on policy even if the overall total isn't remarkably high. This is where the Language Index can be most helpful.

Automating the equation, in this instance in Microsoft Excel, allowed me to manipulate the growth rates and time values to see how the values would respond in the future should simulations be accurate. Since some nations have multiple official languages, and some continents heavily influenced by multiple official languages of interest in this study, I wanted to look at varied growth according to plausible future events to see how the languages involved are influenced. Africa, for example, is home to a significant number of nations where either English, Arabic, French, or a combination of the three hold official status. Significant growth and development in Africa is going to have an impact on these languages and can be simulated

to see how they react in relation to languages that are not relevant at this point within that specific continent. The model that I have created is quite extensive in its capabilities, however due to time constraints there is no way for me to explore the majority of the possibilities. I am hopeful that further research based on these concepts will be explored in solidifying the necessity for studies on the importance of language policy. Keep in mind that data is to be used to enhance language policy efforts for a fully functioning EMU as will be proposed in part four.

3d. Data and Analysis

Below are the results after incorporating the data of over 130 countries into the two methods I developed in assessing language value. The Language Value Index results in their entirety are displayed below with a breakdown by criterion and subsequent totaling. In regards to the Future Language Production Formula, I ran two separate tests to see how production would react to different rates of growth, as well as how it would match up against the index. This is in addition to generating current production levels by eliminating the fixed growth variables for GDP (b) and FDI (c), and time (t). Despite the formulas intent on looking at per capita figures across each language world, it will be interesting to see if the index rankings are in line with the formulas interpretation in the absence of rates for growth and time. For a look at the complete set of data please refer to the full list of statistics in the appendix following the conclusion of the study. It is important to remember that at this stage the data has been compiled into a solid figure representing the language worlds in their entirety. All of the

information which follows has been taken directly from the CIA's, *The World Factbook*, which is accessible directly through the CIA's main page (www.cia.gov: Publications, *The World Factbook*). The one exception is with regards to the Index of Economic Freedom developed by the Heritage Foundation with the partnership of *The Wall Street Journal* (www.heritage.org). Within the CIA's *Factbook* resides information on every nation in the world across different sectors ranging from their economies and energy consumption patterns to transportation infrastructure and number of internet users. Data was based on 2010 figures, with GDP measured in terms of purchasing power parity.

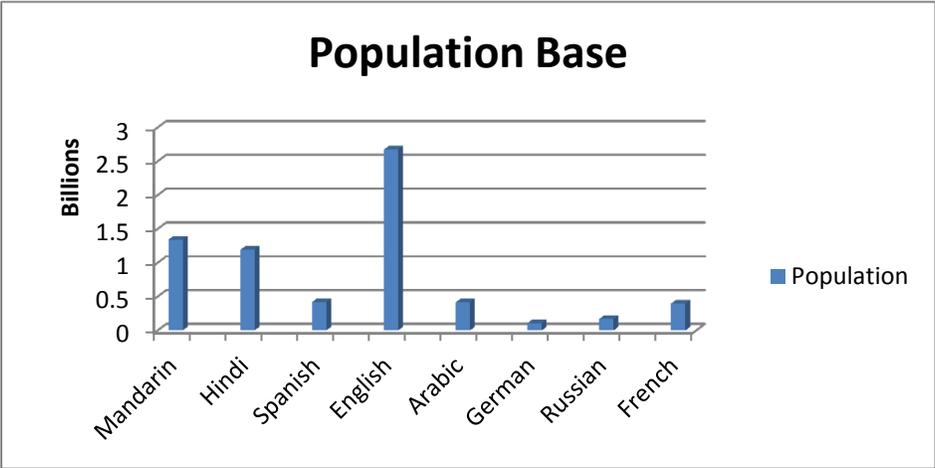
3d.1. Language Value Index

To see how a total was reached a complete breakdown of the results based on the criteria is displayed below. The total figures are provided following the dissection.

Population Base

As noted previously, this is not an accurate number of language speakers but more of a ceiling instead. A large base not only assumedly provides more actual speakers, but in many cases a diversity of outlets in various geopolitical settings and thus a multitude of possible investment and developmental opportunities. It tells us where people are likely learning the language as well. Further with official status comes generally a working capacity as well which may eliminate many of the institutional and administrative barriers perceived to be a barrier to

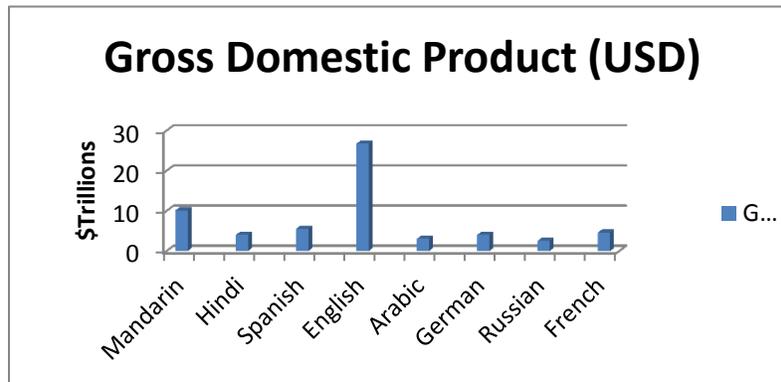
mobility and trade. The same can be said for the deterioration of legal hindrances where governments and institutions are accessible in the specific language.



With roughly 2.65 billion people English has the largest language base in the world and nearly double that of the next largest, Mandarin. Hindi is the only other language which surpasses a billion people. Coincidentally India, which has both English and Hindi as an official language, is the largest contributor to the population base of both languages. From this it is easy to see why India is such an attractive setting for US investment. The absence of lingual barriers to the legal system and a massive population where the young are learning English at a high rate would have to be considered one of the chief factors. Spanish, Arabic, and French all have nearly identical population bases at just fewer than half a billion people. Russian and German are decidedly at the bottom.

Gross Domestic Product

Behind the efforts of nations like the United States, India, Australia, Canada, Hong Kong, and the Philippines, English assumes a wide margin in production at roughly \$26 trillion collectively for the year 2010.

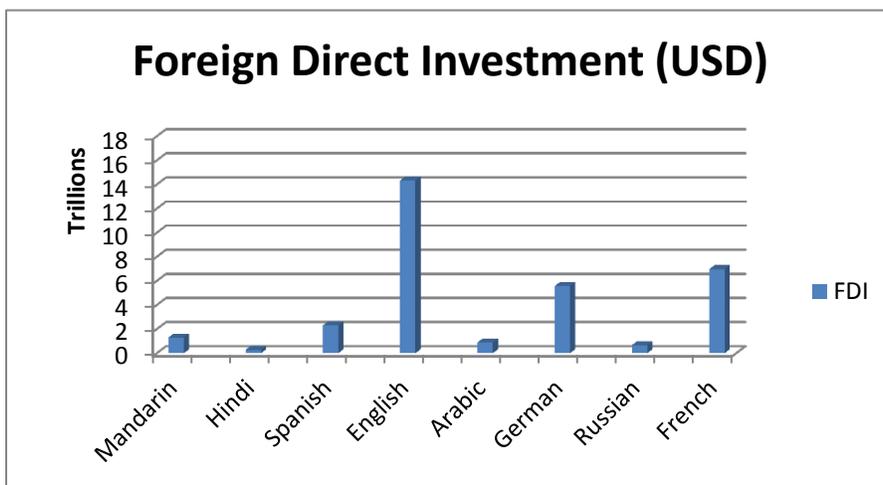


Mandarin is once again the runner up while Spain finishes solidly in third with just over five trillion dollars in production. French and German follow their fellow EU Member State. Hindi, Arabic, and finally Russian finish out the list.

Foreign Direct Investment

FDI statistics prove in favor of the English language once again, but this time alongside three other official EU languages. An opportunity to see the importance of institutions in building conditions favorable to investment is also quite obvious. The economy of the EU is one of the most, if not the most, advanced in the world so it should be no surprise that optimal conditions for foreign investing appear to be in place as well as evident by English, French, German, and Spanish at the top of the results. With the proliferation of English, Spanish, and French on multiple continents it would be ignorant of the very data I collected to attribute the

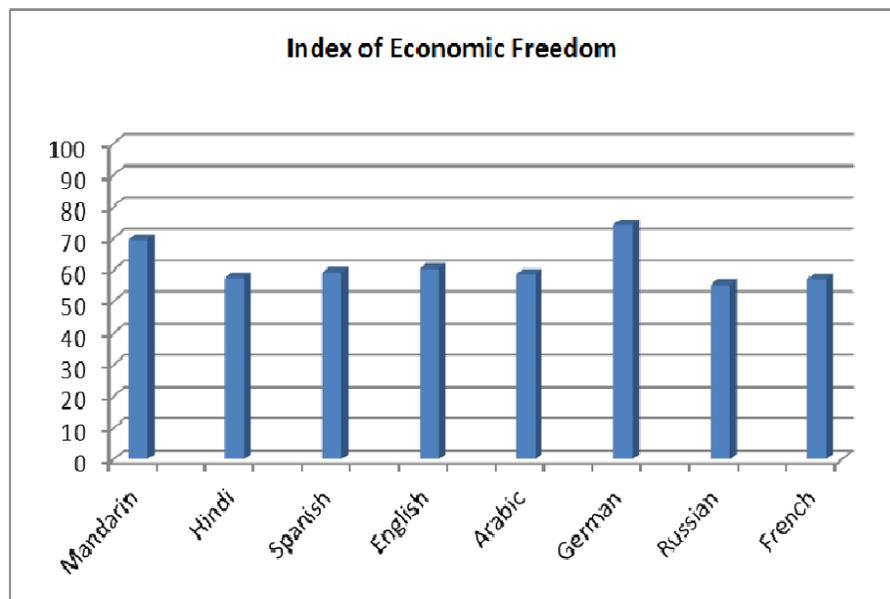
total figures to their Euro presence alone. Still German and French far outperformed their ranking in the population metric, and German is further set apart in that it is confined to only one continent. That the German language world finished with the smallest population base makes its success in attracting and spreading FDI even that much more impressive.



English is in line with previous results in production and population base receiving significant contributions across the world. Illustrating again the effects of domestic policy is the sharp decline in Mandarin’s foreign investment relative to GDP and population. It is for this reason that I added the FDI modifier to the Future Language Production Formula, negating the effects of production for a nation like China where the utility of learning Mandarin is reduced in light of domestic conditions. Where goods and capital are restricted it not only reduces the incentive to invest, but also may limit the likelihood of attracting investment from that same nation.

Index of Economic Freedom

In the same spirit of reducing production value by the extent to which money is deterred from being invested within or flowing out, the Index of Economic Freedom is used to evaluate the overall climate of the economy through standards associated with relatively neoliberal economic principles. The ability to move production factors freely is essential. So too are low levels of corruption and tax burden (heritage.org). Low IEF outcomes across language worlds will hopefully show some correlation with lower FDI.



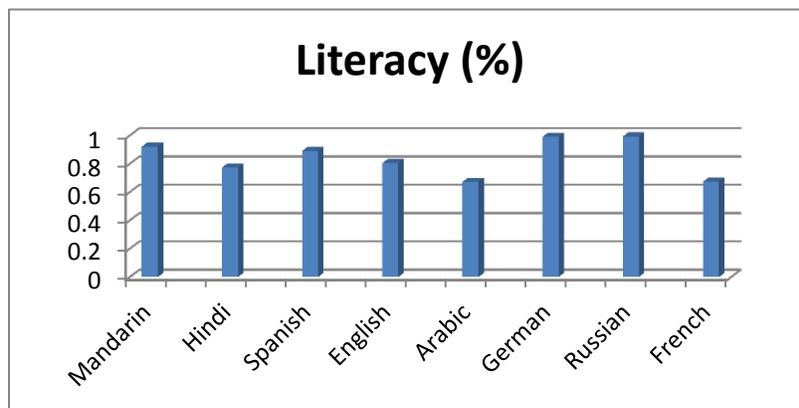
The German language world scored the highest on the scale of 1-100 with a 74.4 tally. Remembering the impressive German foreign investment figures, IEF has shown to be a good indicator in this case. Surprisingly, Mandarin comes through in the second spot while English, Spanish, and Arabic are all within a couple points in the middle of the group. Not surprisingly

Russian and Hindi finish at or near the bottom, consistent with their low FDI totals. French meanwhile reverted to the seventh spot, concerning given their second place finish with FDI.

A relationship between IEF and FDI can be seen at some levels, but overall it was not captured at the capacity I had hoped for. Limitations and flaws of the study will be summarized briefly at the conclusion of part three.

Literacy

Literacy statistics are used in this case to examine the depth and ability of various language populations. An area with high literacy is going to have a more attractive labor force; with a higher capacity to adapt and innovate. In my estimation literacy can be simply used as a basic indicator of educational standards and a government willing to invest in the human capital of its citizens.

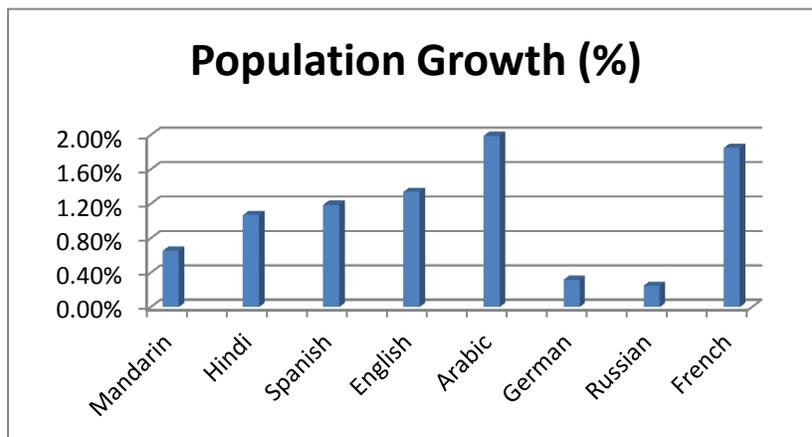


Russian edged out second place German by less than 0.2% in by far its strongest metric so far. German, with over 99% literacy across its world, continues to accumulate a high number

of points. Mandarin was the only other language world to post a literacy rate of over 90%. Just trailing is Spanish at a shade under 90% with English and Hindi at 80% and 77% respectively. French and Arabic have literacy rates far below the other six language worlds, both at 67.3% overall.

Population Growth

Population and population growth will later be used as a factor which mitigates production as per capita figures are established in the Future Language Production Formula based on the interaction of the data collected for this index with the other fixed variables established previously. This speaks to the dual nature of these variables where low values in some areas may be used in hedging language policy with the potential return of lesser developed areas against possible domestic disturbances. For now population growth will be viewed in connection with the benefits of a stronger labor force and overall increased production.



Arabic and French out in front by a large margin when looking at average population growth across language worlds. English, Spanish, and Hindi all display moderate growth rates. Mandarin grows at a lesser rate, yet still far ahead of German and Russian populations of which neither grows at a rate of even 1/3 of a percent.

Global Reach

English	Spanish	French	Russian	Arabic	German	Mandarin	Hindi
.95	.90	.85	.80	.80	.75	.75	.75

Here is a simple measure of the number of continents where each language has official status. A baseline of 0.70 is established with 0.05 added for each continent. Thus the minimum figure possible for the languages relevant to this study is 0.75, with a maximum of 1 if official on every continent. Antarctica is not included in the metric for obvious reasons. While the figures themselves are arbitrary in connection with the index, the utility of such a modifier will be more important in the Future Language Production Formula. From the figures above one can see that English is official on five continents, down to German, Mandarin, and Hindi who have yet to expand outside of their native one. With official status in South America, North America, Europe, and Africa, Spanish is the only other language world in this study who enjoys official status on four continents.

Results

	FDI	GDP	IEF	Literacy	Population Base	Population Growth	Global Reach	Overall (pts)
1st	English	English	Germ.	Russian	English	Arabic	English	English (43)
2nd	French	Mand.	Mand.	Germ.	Mand.	French	Span.	Mand. (29.33)
3rd	Germ.	Span	English	Mand.	Hindi	English	French	German (25.33)
4th	Span.	French	Span.	Span.	Span.	Span.	Russian	Spanish (24.5)
5th	Mand.	Germ.	Arabic	English	Arabic	Hindi	Arabic	French (24.5)
6th	Arabic	Hindi	Hindi	Hindi	French	Mand.	Mand.	Arabic (20.5)
7th	Russian	Arabic	French	French	Russian	Germ.	Germ.	Russian (17.5)
8th	Hindi	Russian	Russian	Arabic	Germ.	Russian	Hindi	Hindi (15.33)

English attained overwhelming figures in production and population to claim the top spot by a wide margin. Following some distance behind is Mandarin, and further the three Western and Central European languages who finished a total of less than one point apart. It will be interesting to see how the results of the index stack up with values according to the production formula, especially in the absence of growth rates. German appears to be very strong with high IEF scores and sizeable FDI. Considering German's population base is smaller than all but one of the other selected language worlds, Russian, that should promise itself a boost under the production formula where low values in population base are not inherently scored lower as in the index. French and Arabic, whose large presence in Africa explains their mirrored movements as well as the overall lower literacy rate and high population growth.

3d.2. Future Language Production Formula

I decided to first test the Language Production Formula without variables or time values. Below the equation is restated for convenience and the results in order of their weighted per capita GDP.

$$FLP(x) = \left\{ \frac{[Bb_t + (Cc_t \times G)] \times E}{[Aa_t \times D]} \right\} \times F$$

bt =	0	Language World	GDP/cap
ct =	0	German	\$20,755
years =	0	French	\$13,905.65
		Russian	\$7,119.44
		Spanish	\$7,079
		English	\$6,198.93
		Mandarin	\$3,723.19
		Arabic	\$2,841.79

As indicated by the left side of the table, fixed growth variables and time are set to zero.

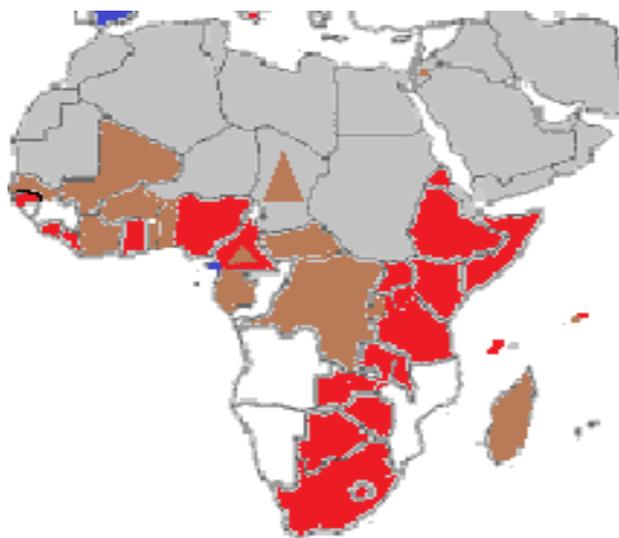
The results are relatively straight forward, but how do they match up against the results of the Language Value Index?

English	1st	German		Language Production Formula	
Mandarin	2nd	French			
German	3rd	Russian			
Spanish	4th	Spanish			
French	5th	English		Language Value Index	
Arabic	6th	Mandarin			
Russian	7th	Arabic			
Hindi	8th	Hindi			

The difference in the rankings is evident by the difference in the construction of the models. Looking back at the index, and the overwhelming dominance of English, it may seem hard to imagine that by other standards it could fall into the middle of the group. As intended however the emphasis on bulk was removed to get production far more in relation to size. In terms of positioning, both Hindi and Arabic finished at or near the bottom of both lists. Spanish also remained consistent between the two approaches. German finished in the top echelon of both as well. English and French were far more sporadic based upon which criterion was used, but was to be expected from languages so broad in base once that advantage was mitigated. Is there any real doubt that English at this instant is the most dominant language in the world in terms usage and scope? I don't know any reasonable people who would argue against it. But does that necessarily mean it's the best option for creating policy around? It is surely possible,

but one could also make the argument that the marginal utility of English is dwindling with every new speaker. For the second trial it is imperative that a future value is determined as it is its intended purpose.

For round two I will look at English, French, and Arabic which each have a sizeable language presence in Africa. Looking at the data across African nations, regardless of language group, confirms quickly that GDP, FDI, IEF, and literacy are substandard when compared to the majority of other data points. Perhaps those best suited for joint cooperation are those who can readily communicate and organize through common language. To illustrate the territory these languages possess in Africa I cropped a graphic intended for part four so the reader can understand the current lingual dynamic in Africa. The area painted red is where English is official, brown as French, and grey the Arabic speaking states. States where more than one of the languages is official is designated by multiple official colors in the nation. Note that in the graphic the Middle East has crept in into view but whose nations are not the topic of this trial.



As a hypothetical we are to assume that the prospect of Africa developing at a fast pace has become quite real due to enhanced regional cooperation and joint projects with the likes of the EU and USA for help in providing a sound infrastructural base for modernization.

With this in mind projections, what kind of an effect will Africa's growth have on language production across the selected language worlds? To answer this question I assumed a fifteen year period of accelerated growth evenly distributed across the entirety of nations on the continent. With increased demand, investment, and domestic production in Africa other areas see a slight reduction in FDI inflow and export activity. Below is how the figures respond to the Future Language Production Model when growth varies according to language presence in Africa. Before the fifteen year period begins is based on the 2010 data and thus is used as a reference point.

bt =	7.00%		Language	Pro / cap (\$)	2010 level
ct =	4.00%		English	\$12,907.62	\$6,189.93
years =	15.00		French	\$22,151.00	\$13,905.65
			Arabic	\$5,677.00	\$2,841.00
bt =	4.50%		German	\$38,302.02	\$20,755.24
ct =	1.00%		Mandarin	\$6,491.16	\$3,723.18
years =	15.00		Hindi	\$1,979.66	\$1,202.00
			Spanish	\$10,803.77	\$7,079.00
			Russian	\$12,937.00	\$7,119.44

From this we can see that through the African development English overtakes Spanish and nears Russian production levels. Before the focus turns back on policy in the European Union inefficiencies with the model will be revealed.

Shortcomings of the Models

Of the problems I ran into while designing the study it was time and manpower which ended up being the biggest barrier to achieving I desired to with the formula. Had I more time I would have liked to group the nations by continent as well to see the varied response by languages groups against acceleration in single growth area. For the purpose of test two, it would have been interesting to tab all of the African nations and accelerate growth to watch what happens between English, Arabic, and French but without having to attribute the same rates to the English, Arabic, and French speaking world outside of Africa.

The dual nature of the used variables was also another problem to deal with from a planning aspect. For an example let's take population growth. At times, population growth is looked at as a way of strengthening the labor force or a sign of rising health standards and quality of life. At the same time, growth can be dangerous and a signal of future problems. It is possible that 2% population growth in country A is positive where it is unwanted in B and as a result hard to model in terms of attractiveness.

I also neglected to add a standard inflation rate to see what kind of production growth is needed in order to improve per capita production. In terms of the growth rates for GDP and FDI, it would have been smart to have an adaptable measure for the institutional aspect as well, perhaps an adjustable IEF.

Finally I would have prevented a couple of technique errors that arose simply out of own inexperience in developing a model of this extent. Had I the opportunity to do it again I would make sure that the total figures are properly weighted for the size of the inputs. Once again drawing from the Language Index, the measurement of IEF placed Mandarin second for economic freedom because of the extremely high score for Singapore, only alongside of China the Mandarin language world. While these figures were averaged, China is the force behind the vast majority of production and population and should have influenced at a rate more in line with its contribution

Part 4: A Dynamic Language Policy for the European Union

Before moving forward into the actual design, it is first important to respond to some of the criticism seen early with language policy and selection.

Response to Earlier Criticism

I will focus on the critic who was most aggressive in his approach, Robert Phillipson, and specifically on two points that I contend with. First a response to Phillipson's claim that;

Lingua Franca is a pernicious term if the language in question is a first language for some people but foreign for others. It is a misleading term if the language is supposed to be neutral and disconnected from culture. It is false for a language that is taught as a subject in general education (Phillipson, 3).

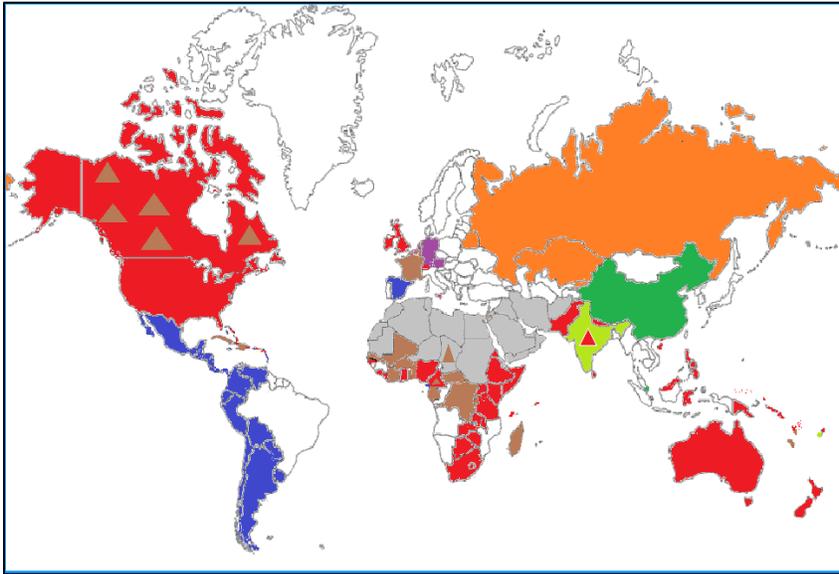
First, the harm in adopting a local living language as the Lingua Franca is unwarranted. Not only does it make the most sense in terms of application and logistics, but burden experienced during language learning falls on both parties at some level. For the learner, it is a disadvantage if he were competing with a native speaker solely on the command of language. For the native speaker, more and more foreign language speakers opens areas previously reserved for native speakers and will eventually reduce the utility of its knowledge.

Second, there is nothing misleading about language and neutrality. It is this argument which seems the weakest to Often put in the context of English, I wonder why it seems the adaptability and flexibility of the English language has largely been ignored. Not only spoken as an official language on five continents, but it is the native language in many countries as well

who have developed it into something which represents them, not takes from them. The assertion that English is more American than Australian or British, or that somehow the two cultures are bound by language, largely ignores the very manner in which English has been used by third parties and now has a unique feel specific to those who adopted it. And further where is the evidence that the adopters' cultures have eroded due to the choice in language and not other factors? If the imperialism is so great, why are so many English speaking nations struggling when "infiltrated" by US ideals that would have been thought to streamline their efforts with the US?

Finally, if a lingua franca is dangerous when taught in public education, where would a better setting be? Where else but schools would one be able to learn a language alongside others who will also give the language a feel that is unique to them with words and phrases and expressions not found in English elsewhere? Until the lingua franca is self-replicated through inclusion in the household and naturally learned language locations, learning a language from a young age anywhere else is unrealistic.

A Economic Approach to EU Language Policy



To the left is a map I filled in according to the data collected for the formation of language worlds in part 3. Where red English is official, orange for Russian, blue Spanish, dark green for Mandarin, light green Hindi,

grey for Arabic, brown French, and purple for German. Perhaps the EU would benefit from modeling its language policy in a similarly looking diversified manner which through multilingualism can act as strategic outlets throughout Europe and the world.

If policy were to be formed from an economic standpoint the first need is for an administrative lingua franca in the European Union and an end to the translation nightmare. For the sake of convenience and current aptitude it seems as though English would be the most efficient choice, but certainly there are other viable options. Translation duties at the EU level could be significantly reduced and managed then at the national level where the vast majority would be translated just once from English to the national language.

The second part of policy is focused around which languages are learned and where. I look for the EU to stay within its trilingual goal with minimum language education standards applied across the Union but with some sovereignty over selection residing with the Member States. The first language in the triumvirate is, of course, the national language which is still protected as official by the EU. The second language to be taught is another European language to strengthen mobility and increase social cohesion. Remembering all the way back to the studies in part one, it is important to remember the 77% of EU citizens who believed that English was most important to the development and future of their children. I believe it is before any politicians seriously object, how many of them were sworn in by such an overwhelming majority?

Finally the third language will be a language from outside the EU, left to the discretion of the Member States. This discretion should be used carefully, looking to form partnerships and facilitate cooperation with areas who can benefit mutually. Perhaps joint language between nations can take place where the incentives are realized. A Balkan area with knowledge of Arabic is could be instrumental in developing the economy alongside those in northern Africa. In the same sense, Eastern Europe, especially in Latvia, Lithuania, and Estonia where preference and ability are higher, could go a long way in enhancing Euro-Russian relations through endorsement in language, while also further opening the economies to each other. With many possible incentives, it is important for further studies in this context.

Conclusion

For the European Union to fulfill its goal as the most capable and sustainable economy in the world it is imperative that language policy becomes a high priority for both the EU institutions and the Member States.

In part one it became clear just how difficult the language situation in Europe is. With 23 official languages management becomes expensive and timely. Further, preferences for language learning are diverse and gives rise to power struggles over which language to work in or which languages to promote. Without an ability to enact policy on its own, the EU has thus been relegated to funding various programs to enhance communication, solidarity, and mobility. Despite these efforts criticism has risen higher and higher often focusing around the dominance of English at the expense of other official languages.

In part two it became obvious that language was a major factor in advancing the EU from an economic standpoint. The functioning of the monetary union could very well be enhanced through the elimination of lingual barriers to action where otherwise preference would act as adjustment. Proper selection from an economic standpoint is critical as a way of maximizing the mobilization of citizens and attracting investment where comparative advantage where attainable. This opens the door to many possible languages then, and selection could depend on any number of languages depending on the realities at hand. Thinking of language through economic ends is not intended to be the only way of examining policy and it would be unwise to treat it as such. Nevertheless there are overlapping social and

political gains to be made through a language policy that enhances the economic area of the EU. Nevertheless I hope to have contributed to the ways in which language and economic incentives can be aligned through the creation of the Language Value Index and the Language Production Model which also can look at future potential across language worlds.

In the coming years language and language policy will become even more critical to the functioning of the European Union. The younger generations of the EU are learning language at an a high rate and it would be detrimental to all to marginalize their efforts and openness with inaction from some, and with tactics that one is deserting their heritage for that of the lingual imperialist from others. It is rather silly to assume that the acquisition of language is for lack of a better term, selling out. Acquiring this asset is the opposite as it gives outlet to ones heritage, experiences, beliefs, and so on. At the same time it is natural for some languages are going to be more attractive than others to learn depending on space and time. As long as language is protected under modern democratic institutions, such as the EU's, worries of eroding national languages will be farfetched. I would agree with those who believe that minority and regional languages are in peril. Yet this is nothing new and under no additional threat if policy were to come from the EU regarding this type of institutional change. With an understanding of the EU's ability to legislate current, it would be unfair to emphasize unwarranted blame at the EU for longer failures of domestic policy.

Preaching the free movement of goods, services, and labor is one thing, but it is another to facilitate the conditions which optimize them. The preference for fluidity is growing as the

most educated and linguistically diverse generation of Europeans hit the labor markets. It is essential any success they bring to the Union is reciprocated through thoughtful and diligent policy making at the EU level. This means that nations must be willing to hand over some elements of sovereignty. The EU, when given the chance, must show a willingness to allow for domestic preferences in language selection as well. If nothing else minimum criteria for language education should be attainable with clear established goals. For those member states that are unwilling to cooperate in this regard, I hope with this skepticism comes active domestic policy.

This study has been a chance for me to talk with friends and other students from all over the world about their feelings on some of these issues regarding language and a great deal of credit goes to them in developing ideas goes to them. At this same time, much of the inspiration to look at language in some capacity has been the disappointment in seeing the number of relationships that have gone either unformed or undeveloped because of language differences in the last two years. While I did not by any means live up to my end in this way, it would be unfair to not acknowledge them for their role in this as well.

References

- Ahn, E. (2007). *A Region Divided/United: Language Policy Developments in the European Union*.
- Anderson et. al. *An Administrative Lingua Franca within the EU*. (1997).
- Booij, Geert. *English as the Lingua Franca of Europe: A Dutch Perspective*. (2007).
- Bofinger, Peter, "Is Europe an Optimum Currency Area?" Centre for Economic Policy Research, Discussion Paper Series No. 915, February 1994.
- Cavelaars and Hessel. *Regional Labor Mobility in European Union*. (2007).
- Christiansen, Pia Vanting. (2006). *Language policy in the European Union*.
- Commission of the European Communities (2008). "Multilingualism: an asset for Europe and a shared commitment."
- Commission of the European Communities (2008). *AN INVENTORY OF COMMUNITY ACTIONS IN THE FIELD OF MULTILINGUALISM AND RESULTS OF THE PUBLIC ONLINE CONSULTATION*.
- De Gijssel, Peter and Manfred Janssen. "Understanding the Dutch-German Cross-Border Labor Market: Are Highly Educated Workers Unwilling to Move?" *Tijdschrift vooconomische en Sociale Geografie* 91.1 (2000): 61-77.
- Barry Eichengreen (1991). *Is Europe an Optimum Currency Area?*
- European Commission (2001). *Eurobarometer 54.1: Europeans and their languages*
- European Commission (2004). *Many tongues, one family: Language in the EU*
- European Commission (2005). *A New Framework Strategy for Multilingualism*
- European Commission (2006). *Eurobarometer 243: Europeans and their languages*
- European Commission. DG Employment, Social Affairs, and Equal Opportunities. *Employment in Europe 2009. Luxembourg: Office for Official Publications of the European Communities, 2009*.
- European Commission: The Euro (retrieved 4.4.11)

http://ec.europa.eu/economy_finance/euro/index_en.htm

European Commission: History of the EMU (retrieved 4.4.11)
http://ec.europa.eu/economy_finance/emu_history/history/part_a_2_d.htm

European Commission: Translation Information (retrieved (17.3.11)).
http://ec.europa.eu/dgs/translation/fag/index_en.htm

Eur-lex.Europa.eu (socrates) - REPORT FROM THE COMMISSION FINAL REPORT FROM THE COMMISSION ON THE IMPLEMENTATION OF THE SOCRATES PROGRAM. 1995 – 1999.

Hantrais, Linda. *Social Policy in the European Union*. New York: Palgrave MacMillan, 2007.

Harold Haarmann (1996). *Contact Linguistics: An International Handbook of Contemporary Research*.

Karoly, Adrien. *Language Policy in the European Union*. 2008.

Kenen, P.B. (1969) The theory of optimum currency areas. an eclectic view; in Mundell, R.A. and Swoboda, A.K. (eds.) *Monetary problems of the international economy*, University of Chicago Press, Chicago.

Mundell, Robert A.. A Theory of Optimum Currency Areas (1961). *The American Economic Review*, Vol. 51, No. 4. pp. 657-665.

Paven, Alessio (2004). Labor Mobility in the EU.

Phillipson, Robert. (2008). *Is there any unity in diversity in EU language policy; English as a lingua franca/steina.*

Pym, A. 1999. The European Union and its Future Languages. Questions for Language Policies and Translation Theories. *Across Languages and Cultures* 1/1. 1-17.

Peixoto, Joao. "Migration and Policies in the European Union: Highly Skilled Mobility, Free Movement of Labor, and Recognition of Diplomas." *International Migration*. 39.1 (2002): 39-61.

Luca Antonio Ricci (2008). A Model of an Optimum Currency Area. *Economics: The Open-Access, Open- Assessment E-Journal*, Vol. 2, 2008-8.

Shah, Chandra and Michael Long (2007). *Labor mobility and mutual recognition of skills and qualifications: European Union and Australia / New Zealand*.

Tassipoulos, Alexandros and Heinz Werner. "To Move or not to Move: Migration of labor in the European Union." *IAB Labor Market Research Topics* 35, 2009: 1-19.

Thunnissen, Simon Kamiel. *Labor Mobility in the EU: An Analysis of the Barriers to the Free Movement of Labor in the EU*. 2010.

The Official Site of Esperanto - (retrieved 20.3.11)
http://www.uea.org/info/angle/an_ghisdatigo.html

