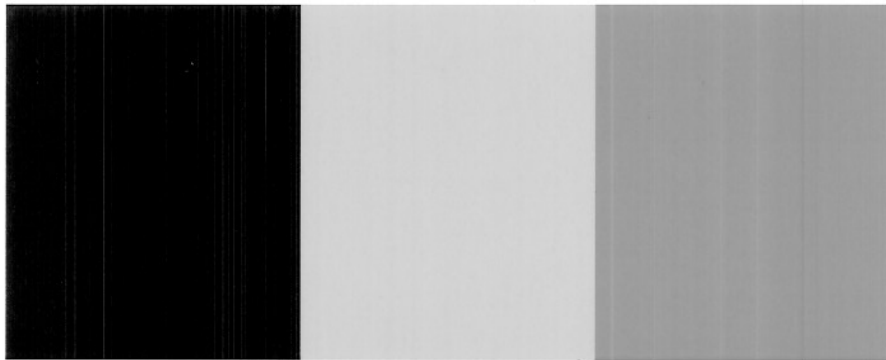


*The views expressed herein are those of the author and do not reflect the position of the United States Military Academy, the Department of the Army, or the Department of Defense.*

# Belgian Country Report

By

Bryan Groves



## Part 1 – Introduction and Recent Developments

A number of important geopolitical events in the last three decades, Belgium's membership in the EU and its adoption of the Euro, along with its domestic responses have impacted recent developments in its economy. The nation has been marked by an increasing Real GDP, a balanced budget, a CA surplus, improved terms of trade, decreased openness, high unemployment, an ageing population, a pending social security crisis, and a contractionary fiscal and monetary policy meant to keep inflation low and increase national savings to avoid a social security disaster. This has been balanced with select expansionary policies to fight the high employment.

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<sup>1</sup> Image taken from [http://en.wikipedia.org/wiki/Image:Flag\\_of\\_Belgium.svg](http://en.wikipedia.org/wiki/Image:Flag_of_Belgium.svg), accessed 18 February 2008.

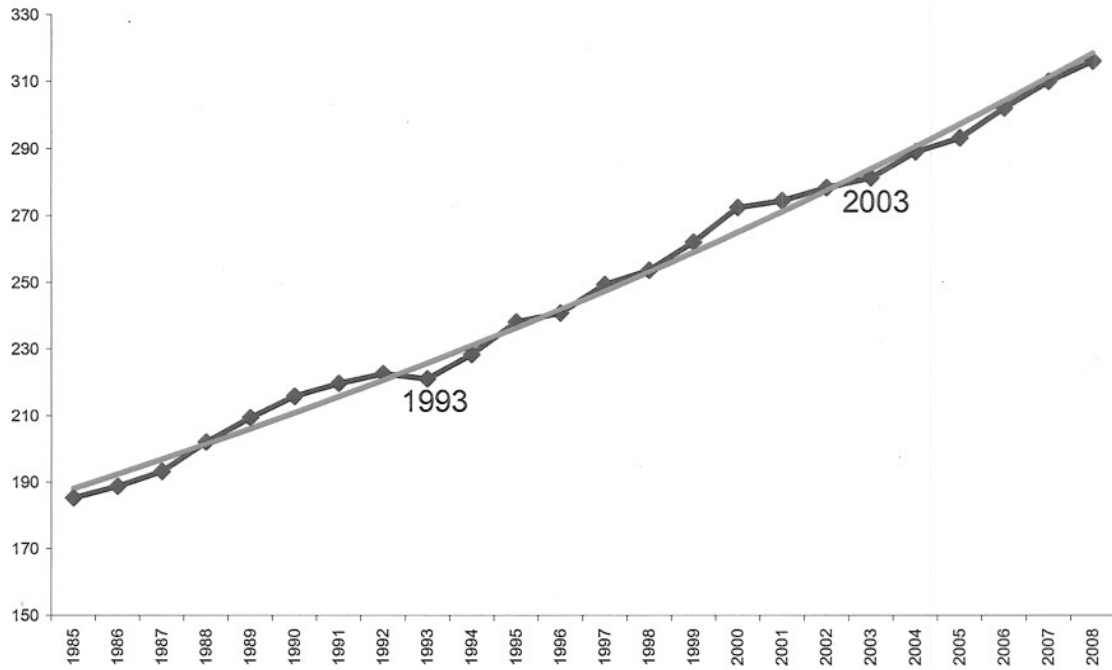
Real GDP for Belgium generally and steadily increased during the years 1985-2008 (including the estimates for 2007 and 2008). The growth of Real GDP is not perfectly smooth. There are some small variations and even down turns in Belgium's growth for a few years. Most notably, Belgium experienced decreases that dip below the trend line (pictured in red) in 1993 due to the exchange rate crisis of 1992 and again in 2003. The Real GDP quickly rose above the trend line after its dip in 1993. Since 2003, however, it has remained just below the trend line.

The period since the collapse of the USSR and the end of the Cold War has seen tremendous change throughout Europe with the unification of Germany, the creation of the European Union and its capital in the Belgium capital of Brussels, and the creation of a common European currency in the Euro. Add to these developments the increased threat posed by transnational terrorism since September 11<sup>th</sup>, 2001. Although Belgium has remained largely unscathed by recent acts of terrorism, Europe has not. The Madrid train bombings and a series of attacks in the UK, including the subway bombings, have influenced Europeans and their politicians.

It is possible that the downturns in the growth rate of Belgium's Real GDP are linked to these events, particularly the creation of the EU in 1993, the creation of the Euro in 2002, and the deepening of the Transatlantic rift caused by the Iraq War, which began in 2003 (but had a lead-up to the war in 2002 with a fight in the UN over Resolutions authorizing the use of force). Belgium may have suffered slightly as their own citizens and others in Europe and around the world reacted to these events and expressed uncertainty regarding the future of Europe and its role in the world. However, over all, Graph 1 depicts Belgium's steady increase in GDP.

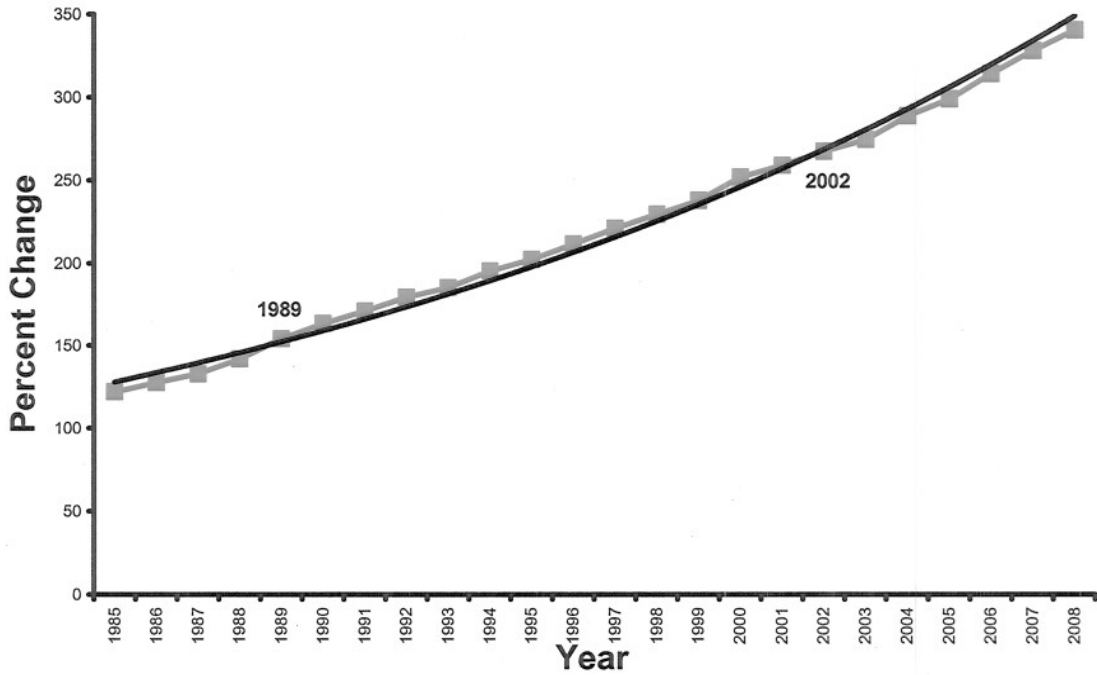
**Graph 1:**

Belgium: Real GDP (Level in Billions of National Currency)



**Graph 2:**

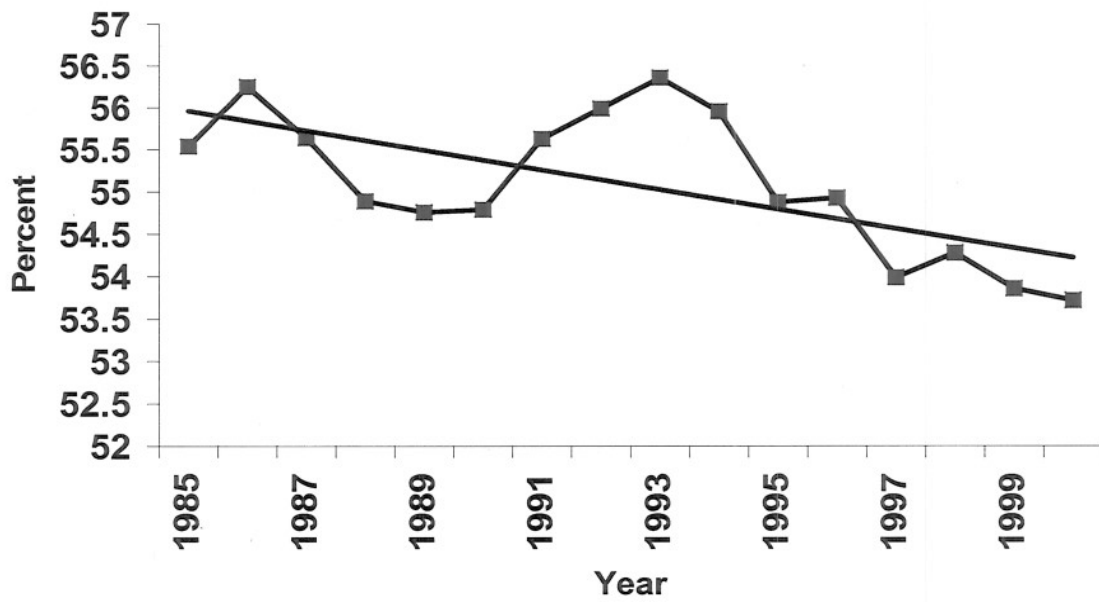
**Belgium Nominal GDP (Level in Billions of National Currency)**



Like Real GDP, Belgium's Nominal GDP from 1985 to 2008 (estimated in the last two years) steadily increased. During the years shown, it rose above the trend line for the first time in 1989, perhaps linked with the beginning of the collapse of the Cold War. Belgium may have found more markets for its exports as Eastern European countries began to open up. In 2002, Belgium's Nominal GDP dipped below the trend line for the first time since 1989, perhaps linked with the creation of the EU. Belgium's Real and Nominal GDPs have both been just below their trend lines since 2002-2003. I believe that is probably because the country, as one of the smaller EU member states, has had a hard time adjusting to the Euro.

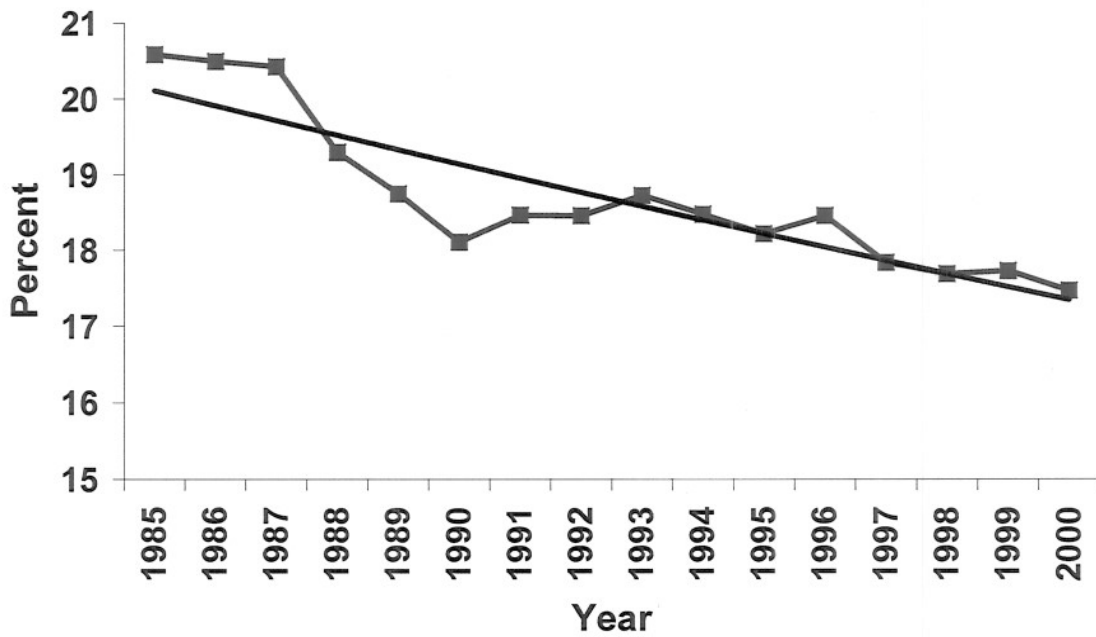
**Graph 3:**

**Belgian Consumption (% of Real GDP)**

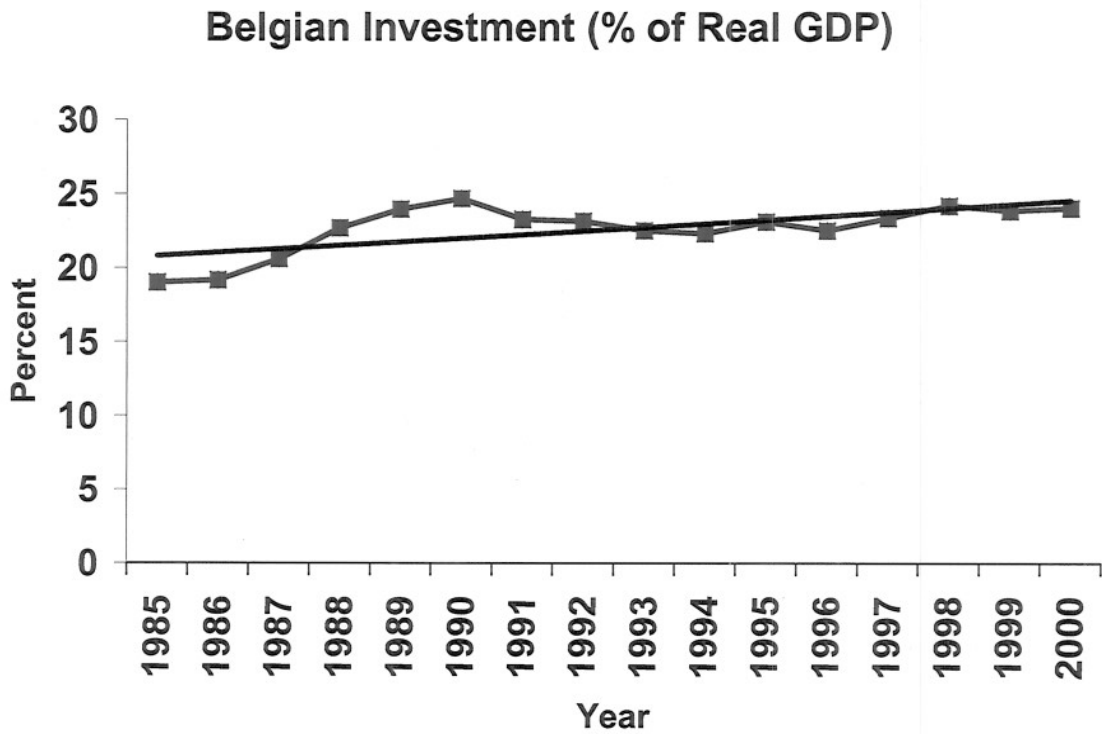


**Graph 4:**

**Belgian G (% share of Real GDP)**



**Graph 5:**

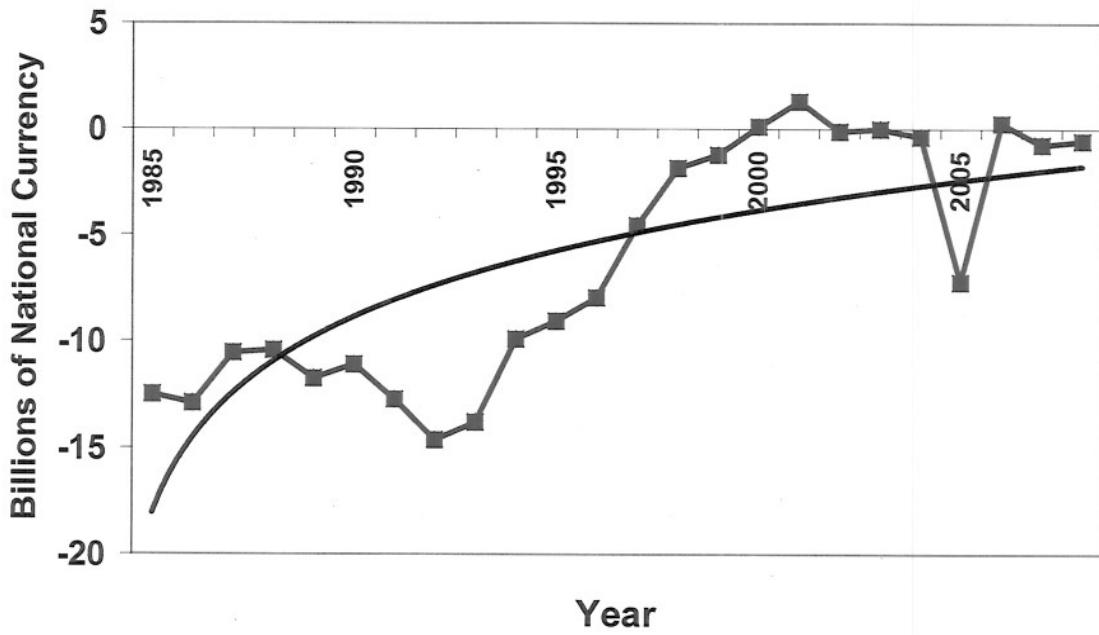


Graphs 3 through 5 show that the relative percentages of each component of Real GDP, (Consumption, Government purchases of goods and services, and Investment) have remained fairly consistent over the period from 1985 to 2000. (I did not find data more recent than 2000 for these set of measures.) Consumption share of GDP has hovered in the mid-50 percentile range and has generally been on a downward trend, the share of government purchases has decreased over the period from approximately 20% to about 17.5%, and investment has varied slightly, increasing over time from about 19% to 24%.

Graphs 6 and 7 show the trend in Belgium's government balance over the last couple decades. High spending was the reason for the initially high deficit the country was running. In the last few years, Belgium has begun to balance their budget with decreased spending to avoid an impending social security crash, which I discuss later.

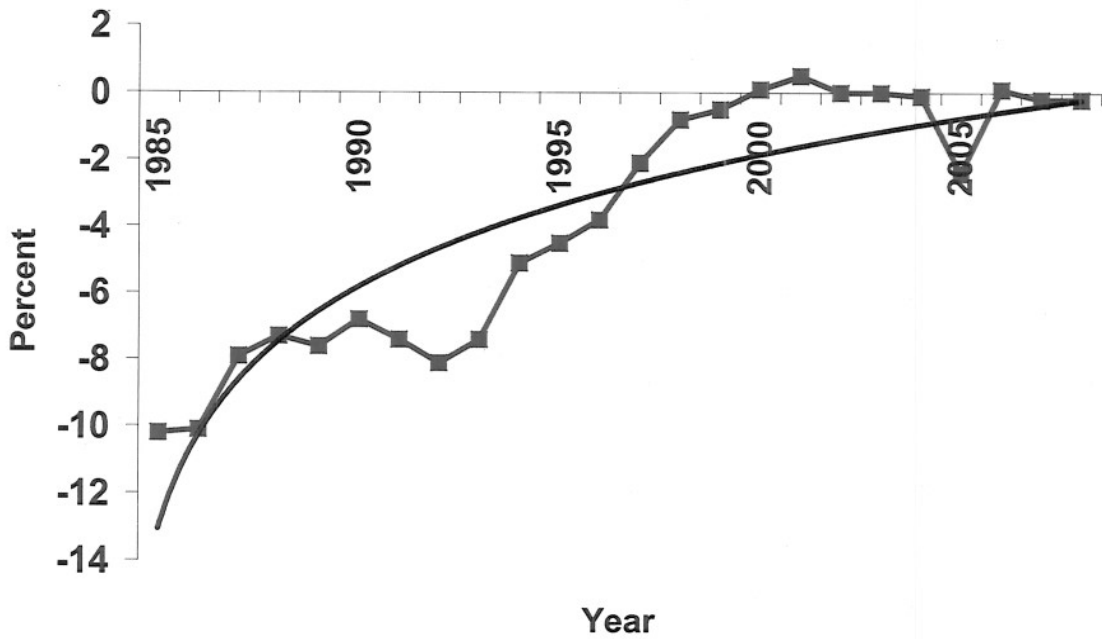
**Graph 6:**

### Belgian Govt Balance



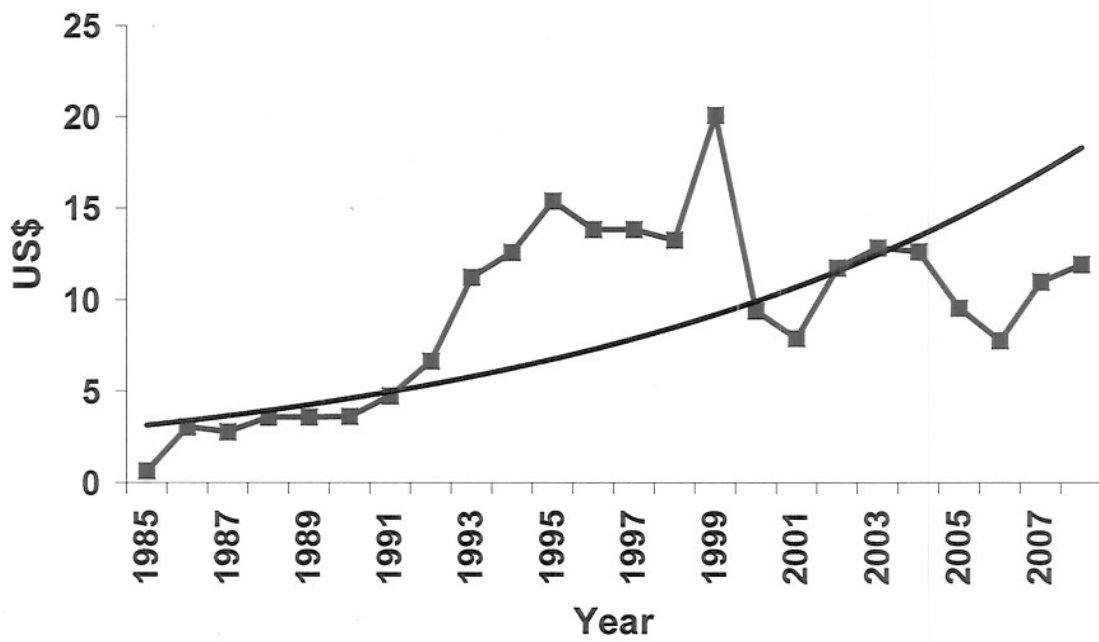
Graph 7:

### Govt Budget (% of GDP)



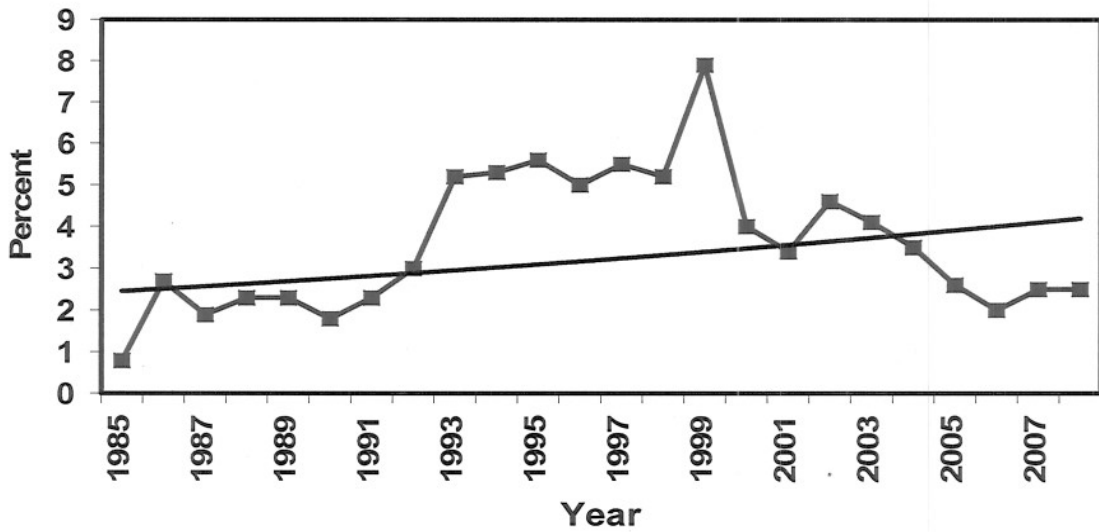
Graph 8:

### Belgian Current Account Balance



Graph 9:

### Belgian CA (% of GDP)





Graphs 8 and 9 show Belgium's volatile CA balance since 1985. The CA has increased over time and is positive, meaning that the Belgian KFA is negative. However, the percentage CA of GDP has been quite volatile, increasing from about 1% to about 8% at its peak in the late '90s. Recently, it has decreased back to about 2%.

## **Part 2 – Trade Performance and Commercial Policy:**

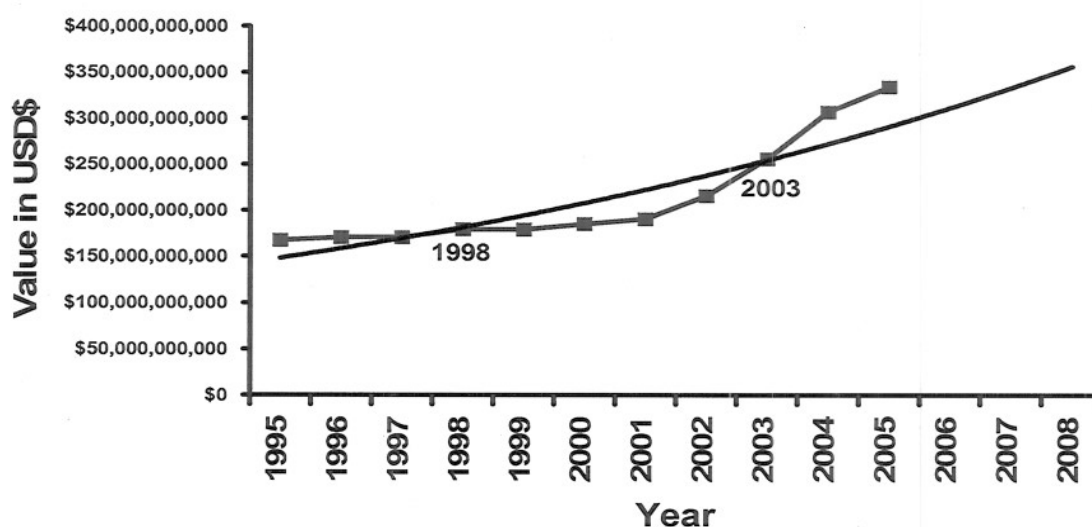
### **Part 2 Introduction**

A number of important geopolitical factors have affected Belgium's trade performance and commercial policies over the past ten years. The European Union has grown considerably, adding ten additional countries in 2004 and another two in early 2007. This rapid expansion has resulted in the EU nearly doubling in size from a constituency of 15 member states to 27. Belgium, an early EU member country, houses the EU's capital in its capital city of Brussels. Although Belgium is a small country and a pricetaker in the global market, its role in the EU and its location in between two of the traditional great European powers, France and Germany, has ensured that it plays an important part in European affairs. During the last ten years, Belgium's trade performance and commercial policy has been sound but characterized by decreasing openness, volatile but increasing terms of trade, a lot of trade within Europe, and gradually increasing exports to the U.S.

### **Exports and Imports:**

#### **Graph 10:**

## Belgian Exports of Goods

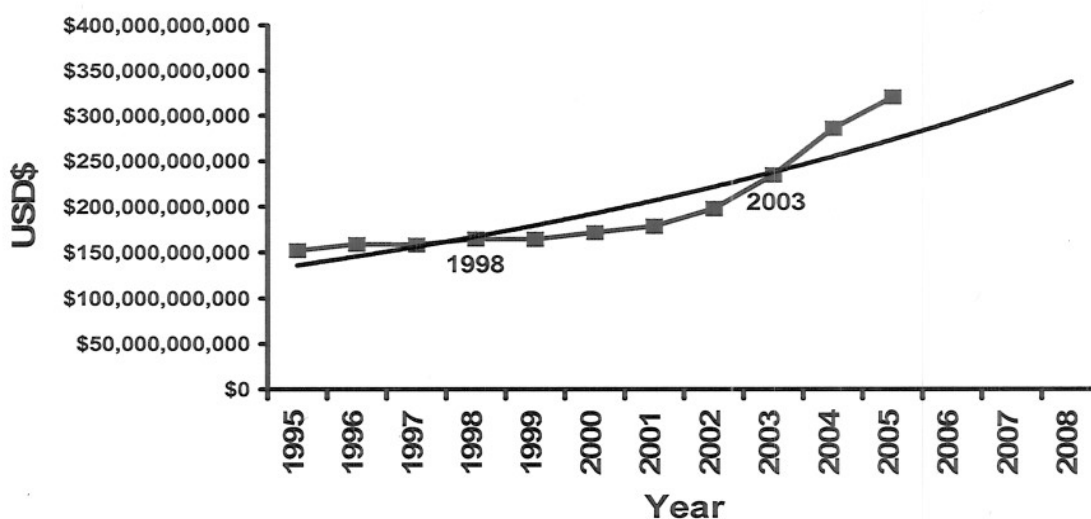


<sup>2</sup> The evolution of Belgium's export of goods over the last ten years has demonstrated a significant rise in value from approximately \$150 billion to nearly \$350 billion annually. Belgium has more than doubled its US dollar (USD) value of its exports during this period. Most of that increase occurred during the last four years, from 2001-2005. This is significant, but a good portion of this increase is due to the ground that the Euro has gained against the USD during the corresponding period, primarily since 2002. The EU's transition to the Euro in 1999 and the tremendous increase in the value of the Euro projects a continued rise in the USD value of Belgian exports for the foreseeable future. This is in accordance with the extrapolated trend line shown in Graph 10 and is consistent with expected outcomes due to the EU's increased economic influence throughout the world.

### Graph 11:

<sup>2</sup> Data in this graph is from SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableViewer/tableView.aspx>, accessed 18 February 2008.

## Belgian Imports of Goods



<sup>3</sup> Belgian import of goods has followed a similar evolution to that of Belgian exports of goods during the last ten years. For this reason, Graph 11 looks very similar to Graph 10. The values of Belgian imports of goods, in terms of USD, run parallel to that of its exports. They began the last decade near \$150 billion and ended it by approaching the \$350 billion mark. Like exports, the USD value of imports dipped below the trend line in 1998 and crossed back above it in 2003 for the first time since then.

It is important to note what Graphs 10 and 11 indicate about Belgium's trade performance. It means that Belgium has consistently kept relatively similar levels of imports coming into its country and exports leaving its country. This is indicative of a trade strategy, [at least in terms of goods exported and imported], that attempts to balance importing and exporting, neither becoming predominately a net exporter or a net importer. Trade is economically beneficial and Belgium needs exports to fuel economic growth, especially for Belgian producers, like those of chocolate and waffles. For

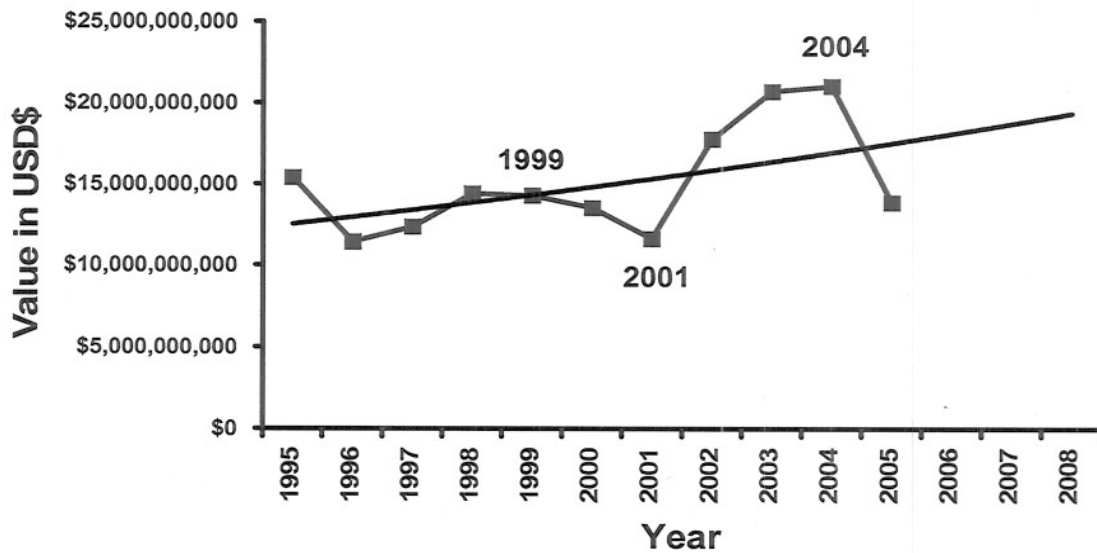
<sup>3</sup> Data in this graph is from SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableViewer/tableView.aspx>, accessed 18 February 2008.

products such as these where Belgium holds a comparative advantage in production, it exports, while importing other goods for which it does not have a comparative advantage. This produces winners among producers making these products, while other producers are less fortunate, but can still do well at home.

Graph 12 illustrates that Belgium has been a net exporter of goods and is useful because it compares X and M and shows which has grown faster. Despite volatility, Belgium's value of its net exports of goods has remained positive throughout the past ten years. Graph 12 shows that Belgium has been increasing its exports to imports ratio. However, this increase [shown best by the trend line] has been gradual and uneven, as demonstrated by the multiple up and down turns in net exports over the period.

**Graph 12:**

## Belgian Net Exports of Goods



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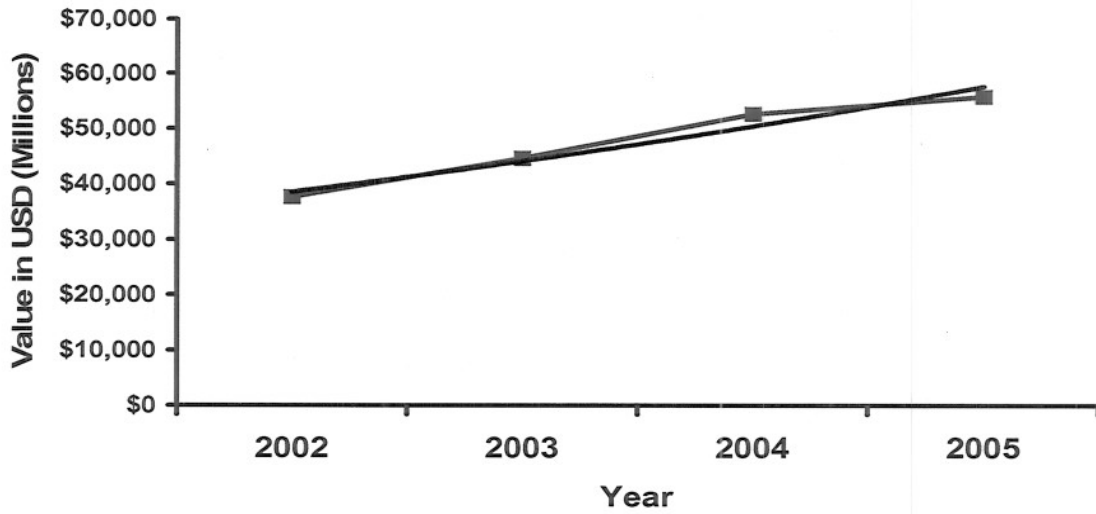
Graphs 13 and 14 pertain to Belgium's exports and imports of services, respectively. Like Graphs 10 and 11 [exports and imports of goods], they appear very similar to one another. Data was only available for a four year span, from 2002-2005, so the ability to establish a trend is limited. Both demonstrate a gradual rise in numbers, with exports of services registering slightly greater than imports of services.

### Graph 13:

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<sup>4</sup> I calculated the data in this graph from data on Belgium's exports to the world and imports from the world that I found in SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableView/tableView.aspx>, accessed 18 February 2008

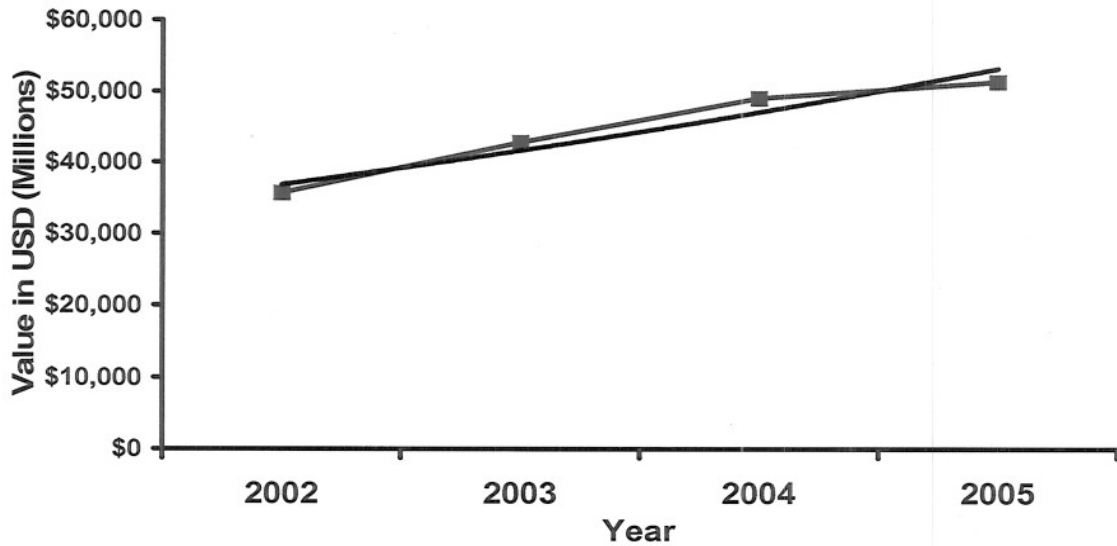
## Belgian Exports - Services



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Graph 14:

## Belgian Imports - Services



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<sup>5</sup> Data in this graph is from SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableView/tableView.aspx>, accessed 18 February 2008.

## Terms of Trade and Commercial Policy

While I could not find current, useful, and yet general information regarding tariffs, import quotas, and production or export subsidies, I did find data on Belgian terms of trade. Terms of trade [Price Exports / Price Imports, or the number of imports for one export] are an important indicator of Belgium's trade performance and provide insight into its commercial policy and who it considers as a preferential trading partner. This can also impact for which goods it levies quotas, tariffs, or subsidies. For Belgium's terms of trade (ToT) I utilized a longer time period, dating back to 1980, to analyze Belgium's trend in that area. This is important because of the significant geopolitical and economic factors that have dramatically changed over this period. Graphs 15 and 16 illustrate Belgium's ToT, for goods and for goods and services, respectively. Both graphs indicate a fair amount of volatility, but a gradual improvement in Belgium's ToT since 2001. In addition, Graph 16 shows that ToT including goods and services are more volatile than ToT with goods only. Goods are more stable than services because goods are more diversified than services.

In 2000, Belgium had ToT at 100. The other data is relative to this year. In both ToT graphs, the early 1980s were the years in which Belgium experienced the lowest ToT, close to the 95 mark. Belgium received its most favorable ToT during the latter half of the 1980s. This trend continued until its ToT fell considerably following the Exchange Rate Crisis of 1992 when there was a big devaluation of European currencies with respect to the German Deutschmark and the price of exports fell significantly. Belgium's ToT then rebounded a couple years later, before falling again until 2001.

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<sup>6</sup> Data in this graph is from SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableView/tableView.aspx>, accessed 18 February 2008.

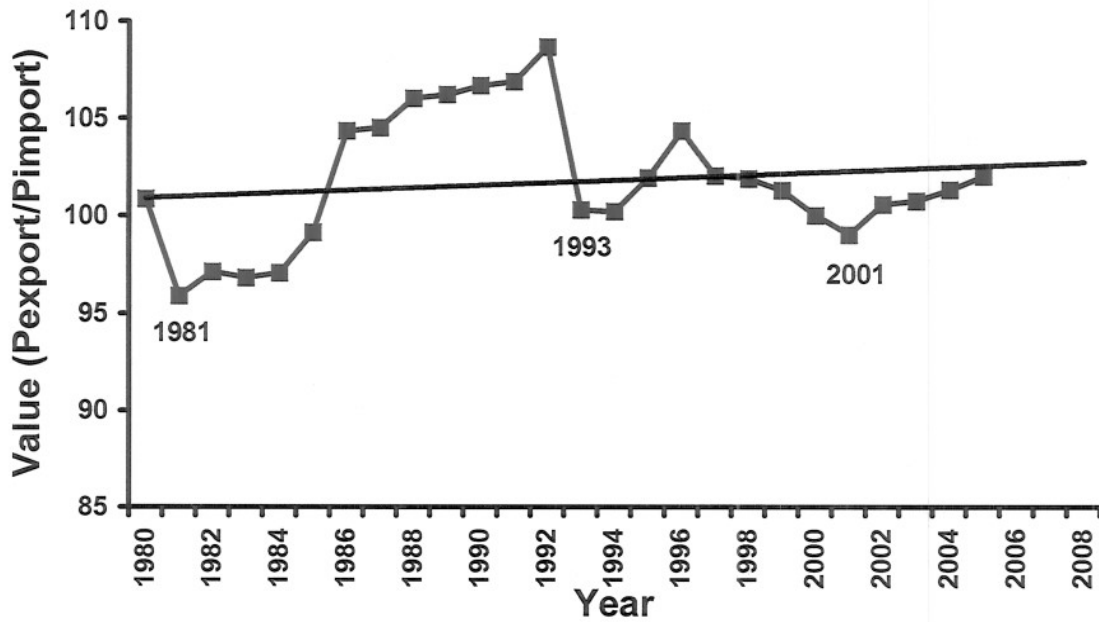
In 2001, after having a number of years to adjust to the instability associated with the early years of the EU, Belgium's ToT began to experience a positive upturn, again exceeding the 100 mark. There are multiple reasons for this recent trend. Belgium's commercial policy, its increase of U.S. imports—in conjunction with the rise of the Euro and the decline of the dollar, the entrance of 12 new, poorer EU member states since 2004 (mainly from Eastern Europe), and decreased Belgian exports—which has led to an increased demand for them (and thus also increased the price of its exports)—are all factors which have caused Belgium's ToT to improve.

I expect that trend to continue, as shown by the extrapolated trend line. Whether this is true or not depends largely on whether additional EU enlargements prove favorable for Belgium's ToT. For Belgium, it will depend on the demand new EU member states have for Belgian exports. Developing countries in Eastern Europe that have constituted the recent inductees into the EU are likely to need more imports, though they will want to balance that with their desire for economic growth through increased exports. In fact, they may be able to increase both their imports and their exports through their new found membership in the European Free Trade Agreement (EFTA) where EU countries offer preferential trade agreements to each other. On the other hand, if the EU admits larger countries [ex: Turkey] who may have less demand for Belgian exports, it may adversely affect Belgium's ToT.

**Graph 15:**

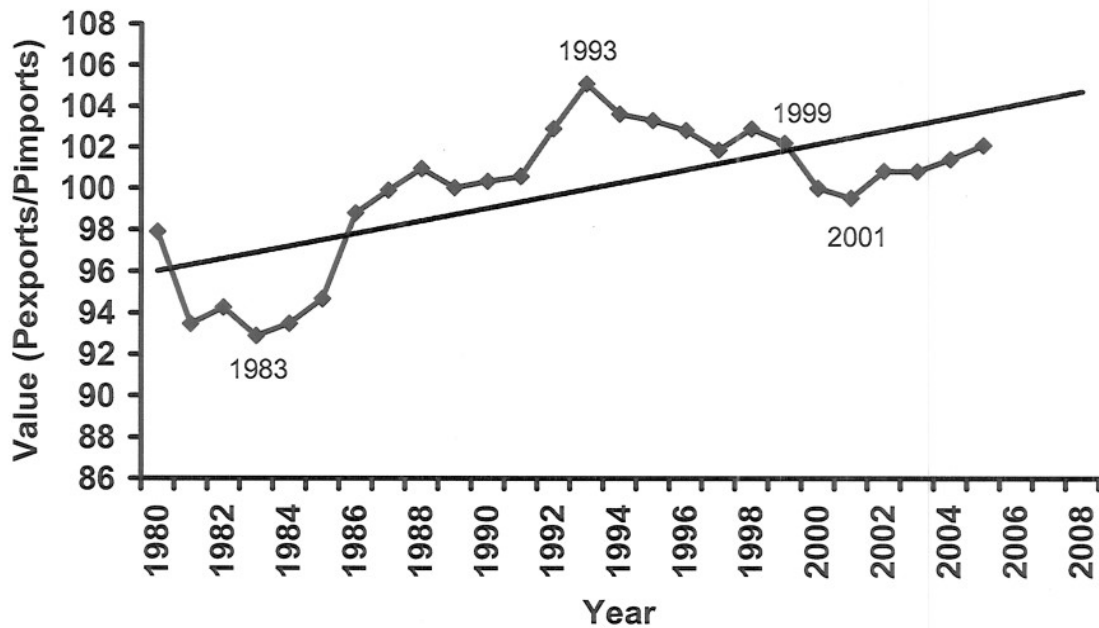


## Belgian Terms of Trade - Goods



<sup>7</sup> Graph 16:

## Belgian Terms of Trade - Goods and Services



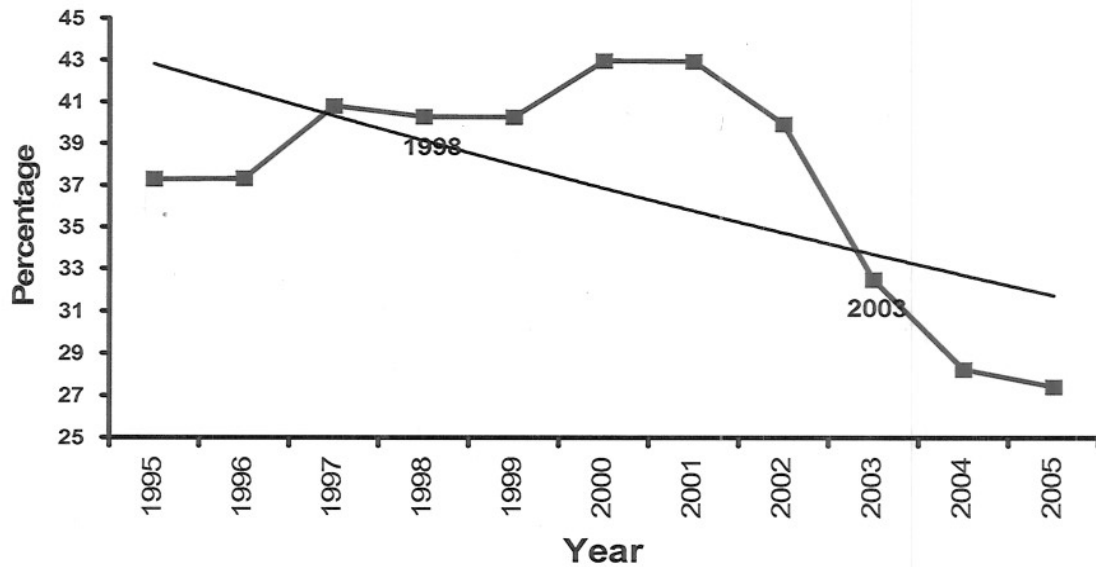
<sup>7</sup> The data for both Terms of Trade Graphs came from Professor Andrea Bubula, 18 February 2008.

## Evolution of Openness

Belgium has become less open over the last ten years, but this change has occurred since 2002. Graph 17 illustrates this. It shows how Belgium's openness, [measured by Exports + Imports / GDP, or total trading as compared to GDP], has decreased by 10% since 1995, after increasing from 37% in 1996 to approximately 43% in 2001. The overall downward trend is contrary to what one would expect. Belgium's membership in the EU and the EFTA, sharing other European nations as its primary trading partners and with whom it enjoys preferential trade agreements, would lead one to expect Belgium's openness to increase over the last decade. Belgium's decrease in openness is particularly interesting in light of its improving ToT. Graphs 18 and 19 show that European nations do constitute the primary countries with which Belgium trades. They also show, however, that the last decade has seen a small decrease in Belgian exports to the Euro Area. Finally, they show that Belgium's trade imbalance between exports to and imports from the Euro Area is evening out.

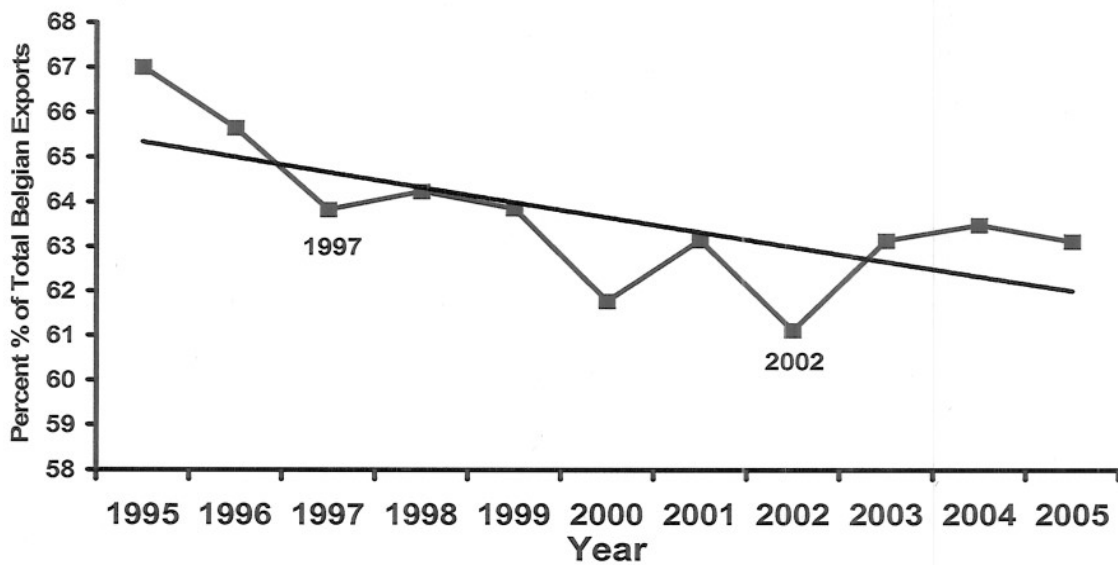
### Graph 17:

### Evolution of Openness (Exports + Imports) / GDP



Graph 18:

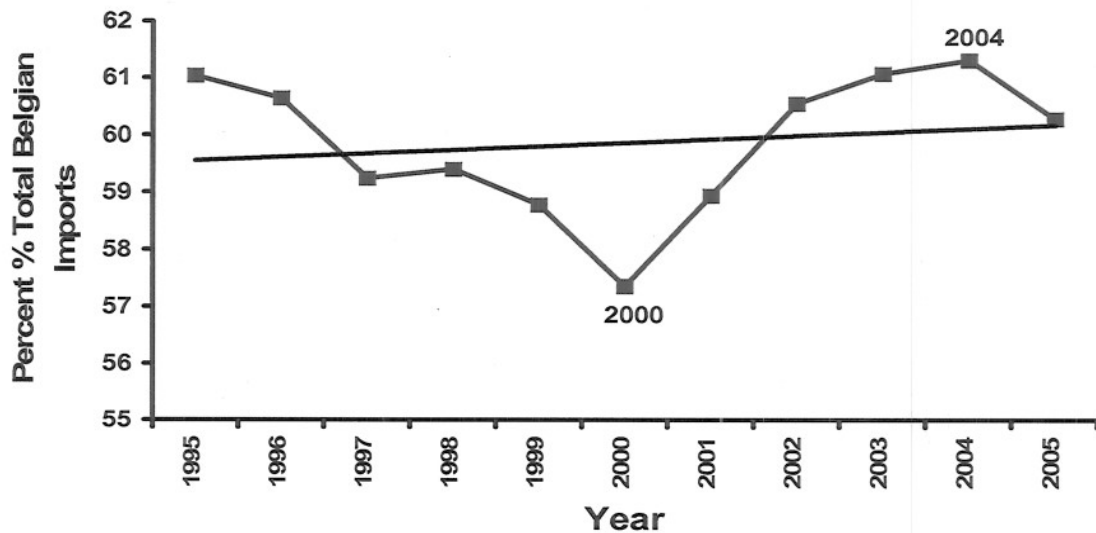
### Percent of Belgian Exports to Euro Area



<sup>8</sup> Graph 19:

<sup>8</sup> I calculated the data in this graph from data on Belgium's exports to the Euro Area that I found in SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableViewer/tableView.aspx>, accessed 18 February 2008.

## Percent Belgian Imports from Euro Area



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### Measures of Trade Concentration

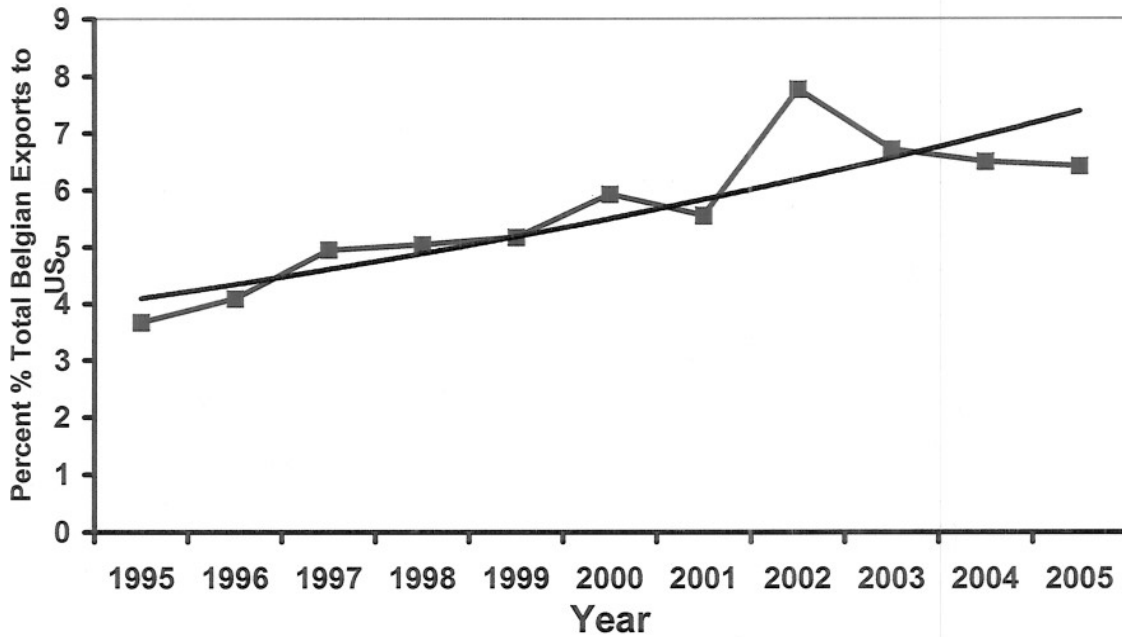
Graphs 18-21 all pertain to Belgium's trade concentration. I focused on Belgium's trade with Euro Area countries and with the U.S. During the last ten years, these graphs convey a pattern of decreased exports to European countries but increased exports to the U.S., instability in imports from Euro Area nations and a slight decrease in the percentage of Belgian imports coming from the U.S.

#### Graph 20:

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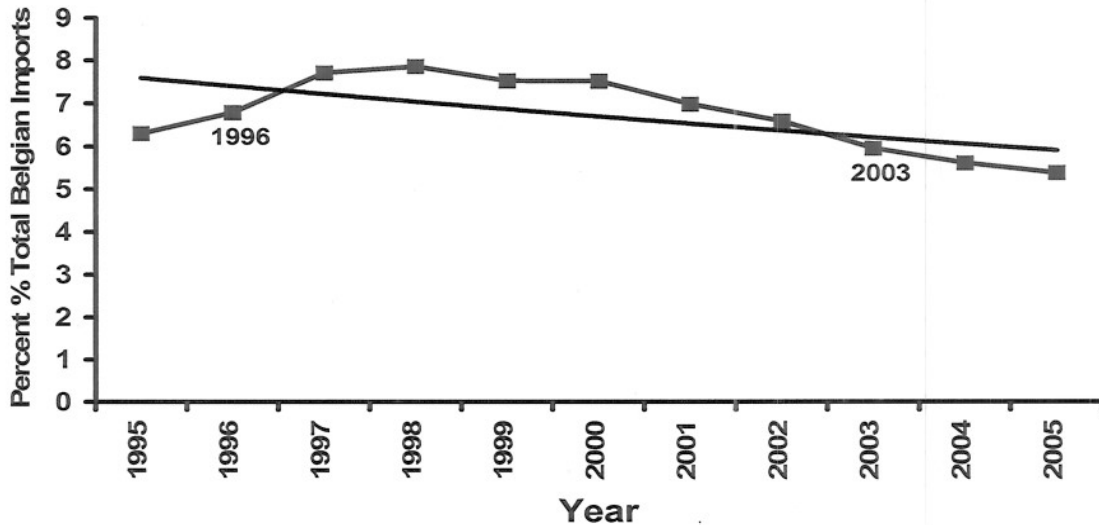
<sup>9</sup> I calculated the data in this graph from data on Belgium's imports from the Euro Area that I found in SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableViewer/tableView.aspx>, accessed 18 February 2008.

## Percent Belgian Exports to US



<sup>10</sup> Graph 21:

## Percent Belgian Imports from the US



<sup>10</sup> I calculated the data in the graphs on Belgium's percent of imports from and exports to the US from data on Belgium's exports to and imports from the US that I found in SourceOECD, <http://oecd-stats.ingenta.com/OECD/TableViewer/tableView.aspx>, accessed 18 February 2008.

## **Part 3 – Labor Markets:**

### **Part 3 Introduction**

During the last ten years, Belgium’s economic policies have been sound, yet its labor markets continue to experience high unemployment levels that remain at some of the highest levels in Europe. In the coming years Belgium needs to address this problem by doing more to encourage job creation, lower its income tax rate, limit the duration and extent of unemployment benefits, limit social security benefits and increase the age at which they are available, eliminate early retirement options<sup>11</sup>, and particularly target women, youth, and elderly employment levels. It also needs to improve labor mobility and address regional differences in employment levels.

#### **Unemployment and Employment – Two Sides of a Related Problem<sup>12</sup>**

Belgium’s unemployment levels are extremely high. They remain near the highest of European nations, which is significant because European countries tend to have high unemployment levels. The overall unemployment rate in Belgium was around 7.5 percent in 2006, but has been even higher and was very unevenly distributed across the country. The highest rate was in the capital of Brussels, which was over 15%. Wallonia, the southern province in Belgium, experienced an unemployment rate around 12 percent while the lowest rate was in the northern province of Flanders at around 5%. The unemployment for youth was especially high and uneven across Belgian’s various

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<sup>11</sup> A few years ago, the average retirement age in Belgium was 56 years, the youngest in Europe. Due to new legislation and incentives, it has increased to 60 years.

<sup>12</sup> Figures in this section come from the March 2007 IMF Country Report No. 07/88 entitled “*Belgium: Selected Issues*.”

regions. In Brussels and Wallonia it was greater than 30%, while in Flanders it was about 13%, and overall it was around 20%.

The problem is both with unemployment and employment levels. While unemployment levels are high, employment levels are low. The low employment levels are especially true for women, youth, and the elderly. In 2006 Belgium's overall employment rate for people age 15-64 was around 60 percent. This level falls short of the European goal of 70 percent decided upon at Lisbon. The employment rate for women was about 50 percent (below the Lisbon target of 60 percent). For the elderly (age 55-64) it was less than 30 percent (less than the Lisbon target of 50 percent), and for the youth (age 15-24) it was also less than 30 percent.

These problems are related, but the situation is complex. The low employment rates are due to a number of specific factors, not simply the reciprocal of high unemployment. For instance, low labor participation (individuals not actively seeking jobs), mix matched skill to job allocation problems, low labor mobility across regions, high wages, restrictive labor laws protecting current workers, early retirement incentives, high social security benefits, and traditionally high income taxes and high unemployment benefits all contribute to the problem.

### **An Ageing Population – A Potential Burden on Belgian Laborers**

Belgium's population is ageing at a rapid rate. Currently one in six of its citizens are over 65. Around 2040, projections estimate that number will be one in four. The ageing problem presents future burdens for Belgium. Immigration is helping with this problem by providing a new pool of low skill laborers, increasing the employment rate

and productivity, and helping to fund social security for elderly Belgians. The government realizes, however, that immigration alone will not solve the ageing dilemma. In response it is taking a number of steps (described in the next section), each of which needs to be strengthened to be of sufficient capacity to handle the challenge.

### **Government Responses (thus far)**

The government has moved in a positive direction on a number of fronts to address these concerns. They have reduced the tax wedge over the last decade, increasing the incentive to work by increasing workers' disposable income. The government has decreased unemployment benefits and the duration for which they apply, also encouraging unemployed people to get a new job quickly. They have also begun phasing out early retirement packages, causing the employment rate among older Belgians to increase. They have relaxed some labor codes, allowing for wage moderation. This is an initial step forward to encourage job creation, as is the government's move to decrease required social security contributions from firms on behalf of their workers. The government has also linked their wage rate to that of three neighboring countries (France, The Netherlands, and Germany) in an effort to manage inflation. This policy seems to have been fairly successful toward this end without reducing the real wage rate earned by the average Belgian.

### **Future Government Policies Needed**

The government needs to implement policies that will be more successful in fostering job creation and doing so over the long term. This will involve further loosening of labor laws. Current laws that make it very difficult for companies to fire



workers work against job creation because they encourage firms to adopt a default policy of not hiring new workers. If it was easier for them to fire workers, they would take more chances on hiring new workers. Thus, by setting policy that is more favorable to firms and does not simply pander to labor unions or seek to preserve workers' jobs, the government can influence an environment that is more conducive to job creation.

The government also needs to facilitate labor mobility by making it easier for workers and firms to travel or reach across regional boundaries. Policies that do these things will also increase competitiveness in the labor market and productivity will increase more than it already has. The government also needs to do a better job of encouraging market competition between firms to ensure that key industries do not become driven by monopolies.

The Belgian government has demonstrated an ability to make the difficult decisions necessary to balance its budget in recent years. To fund the coming rise in social security payouts, they will need to collect more tax revenue and decrease spending. They have begun preparing for this situation by allocating 1.5% of GDP for saving. This is a step in the right direction, but will not be sufficient by itself. Due to the cultural need to fairly balance the social security burden across generations, Belgium passed a law in December 2005 aimed at creating solidarity between generations. It is termed the 'Generation Pact' and encourages older Belgians (those between 55 and 64 years of age) to go back to work, aims to increase employment among young people, offers tax incentives to firms, and requires lower social security contributions from them on behalf of their employees.<sup>13</sup>

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<sup>13</sup> European Labour Law Bulletin, February 2006, available at <http://www.freshfields.com/publications/pdfs/2006/14241.pdf>, accessed 9 March 2008.

The Belgian government also needs to correct imbalances caused by its fiscal federalism. Fiscal federalist policies have resulted in the Belgian national government shouldering the majority of the debt because they share revenues with the lower levels of government.<sup>14</sup> The Belgian national government can correct this problem by lowering the amount of money they pass along, adding more conditions to it, or granting regional and local governments some tax collecting powers and requiring them to raise their own revenue.

**Note:** The information and statistics in this section came from the following sources, in addition to others that I specifically annotated earlier. These sources all presented very similar views as to the direction Belgium has been taking and needs to take in the future. Therefore, it is difficult to cite one specific document for each statement I made in this section of my report.<sup>15 16 17 18 19 20 21 22 23 24</sup>

#### **Part 4 - Fiscal Policy and Monetary Policy:**

##### **Belgian Fiscal Policy**

Tighter monetary and fiscal policies and social security reform during the 1980s and 1990s enabled Belgium to balance its budget during the first few years in the twenty-

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<sup>14</sup> Wikipedia explanation of Fiscal Federalism [in conjunction with my analysis of other websites I have listed which spoke to the problem that Fiscal Federalism has caused the Belgian federal government.] Available at [http://en.wikipedia.org/wiki/Fiscal\\_federalism](http://en.wikipedia.org/wiki/Fiscal_federalism), accessed 8 March 2008.

<sup>15</sup> The EIU's February 2008 Belgium Country Report.

<sup>16</sup> Alain Joustien, M. Lefèbvre, S. Perelman and P. Pestieau, the IMF's February 2008 Working Paper WP/08/30, "*The Effects of Early Retirement on Youth Unemployment: The Case of Belgium.*"

<sup>17</sup> Florence Jaumotte and Irina Tytell, the IMF's December 2007 Working Paper WP/07/298, "*How Has The Globalization of Labor Affected the Labor Income Share in Advanced Countries?*"

<sup>18</sup> The IMF's March 2007 Country Report No. 07/89, "*Belgium: 2006 Article IV Consultation—Staff Report; and Public Information Notice on the Executive Board Discussion.*"

<sup>19</sup> The IMF's May 28, 2007 Survey, Vol. 36, No. 9, "*Belgium: making the future as good as the present,*" p. 136-139.

<sup>20</sup> Anthony Annett, The IMF Policy Decision Paper PDP/07/1, "*Lessons from Successful Labor Market Reformers in Europe.*"

<sup>21</sup> The IMF's Country Report No. 07/259, "*Euro Area Policies: Selected Issues.*"

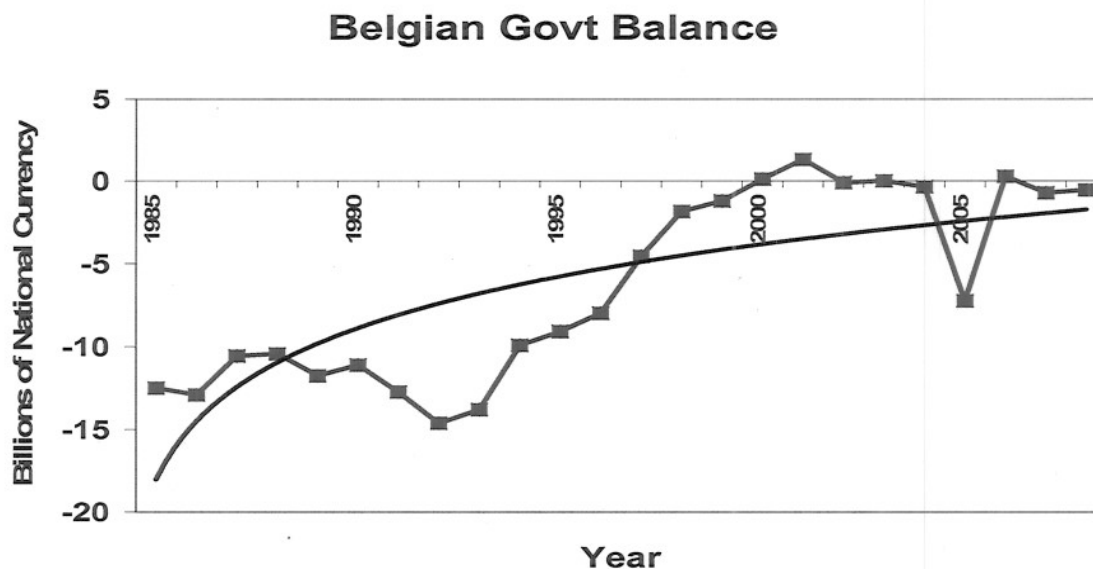
<sup>22</sup> World Economic Outlook's October 2007 Report on Globalization and Inequality.

<sup>23</sup> The IMF's January 28, 2008 News Report, "*Belgium—2007 Article IV Consultation Preliminary conclusions.*"

<sup>24</sup> Rodolfo Luzio, The May 28, 2007 IMF Survey Magazine: Countries & Regions, "*Belgium: Time to Shift to Higher Gear.*"

first century (except 2005).<sup>25</sup> My explanation in the last section about Belgium's social security policies and the graph below help demonstrate this.

Graph 22:



In recent years Belgium has continued to pursue a generally contractionary fiscal policy to coincide with its contractionary monetary policy. Belgium has cut tax rates and funded the tax cut by the small budget surplus it has had in a few recent years.<sup>26</sup> In addition, as a member of the Growth and Stability Pact (GSP)—which is central for Belgium—it has developed the Belgium Stability Programme to facilitate its fiscal consolidation, including balancing the budget and governing social security funding (to be discussed more later). Any individual policies that were more expansionary in nature were aimed at fighting Belgium's high unemployment.

<sup>25</sup> Encyclopedia Britannica Online, available at <http://www.britannica.com/eb/article-24988/Belgium>, accessed April 22, 2008.

<sup>26</sup> Christian Fahrholz and Philipp Mohl, "Fiscal and Monetary Policy in Belgium, France, Germany, Luxembourg, and The Netherlands," April 2003, available at [http://www.ezoneplus.org/archiv/ezp\\_wp\\_17C.pdf](http://www.ezoneplus.org/archiv/ezp_wp_17C.pdf), accessed April 21, 2008.

GDP appears to be driven by the AD because GDP continues to grow despite the relatively high unemployment levels. This is consistent with Keynesian economists who claim that the business cycle is caused by AD shocks and full employment is less important. Belgium is still working on government policies to increase the AS, especially of workers in the labor market. However, the LRAS curve does seem to have an effect on certain aspects of what is happening in the Belgian economy, as described below.

I will now address the overall effects of Belgian policies on taxes, social security, and G on GDP and the CA balance. One would predict that GDP would decrease as a result of a decrease in C and G, such as Belgium has seen. Yet, Belgian Real GDP has increased almost every year since 1985. This phenomenon is explainable by an increase in I and NX that has more than offset the decrease in C and G. As for the CA balance, one would predict that the CA would be  $> 0$  and it is. This is because  $S > I$ . It is also a result of government policies that have increased S<sub>net</sub> and decreased G, TR in general, and social security payments in specific.

Graphically, these policies can be depicted in the following manner (refer also to my hand drawn graphs labeled “Fiscal Policy Graphs” that are included as a separate attachment). Belgian S and I have been increasing. On the Goods Market Graph, this means that the S curve shifts outward, while I expands outward along the I curve. This results in r decreasing. Belgian Y (GDP) has been increasing. On the Labor Market Graph, this means that N<sub>d</sub> expands outward and N increases. The expansion of S, I, and Y shifts the IS curve of the IS-LM-FE graph outward. The new IS curve causes an expansionary movement along the LM curve. In the long run, the FE curve of the IS-

LM-FE graph shifts outward to the right as the LRAS line of the AS-AD graph does likewise. Inflation is kept relatively in check, as desired by the Belgian government, because the AD curve also shifts outward. For the remainder of Part 4 of this country report, I go into more detail on various aspects of Belgian fiscal and monetary policy and its effects.

### **Shocks**

The Belgian government can influence outcomes in its economy through fiscal policy. This primarily includes controlling  $G$  and  $T$ , but can also include manipulating  $TR$ . Below I discuss various effects that different government induced and other types of shocks would cause. I also explore whether they are consistent with recent events, policies in Belgium, and the data which I included earlier in this report. Even the shocks that hold some valid explanatory power for Belgian trends are generally not completely consistent with what an economist would predict. This probably indicates that a few shocks are at work simultaneously.

### **Government policy shock ( $G$ , $T$ , $TR$ )**

*Background:* Since 1992, the Belgian government has been actively seeking to balance its budget. By decreasing  $G$ , it has essentially succeeded in doing so in the last few years (since 1998, with the exception of 2005) and it appears on track to continue to do so, unless derailed by its social security transfers and ageing population.

The decreasing  $G$  holds some explanatory power for Belgium and is a likely cause of some recent trends, but it is not entirely consistent with what one what expect. Using the neoclassical production function and graphs of the market for goods and labor, an

economist would expect that a negative shock in  $G$  would result in a decrease in  $Y$ ,  $N_d$ ,  $N$ ,  $W$  or  $W/P$  (Real Wage),  $C$ , and  $r$ , but would result in an increase in  $S$  and  $I$ .<sup>27</sup> The expected changes in  $C$ ,  $r$ ,  $S$ , and  $I$  appear consistent. However, the Belgian GDP has increased almost all of the last 23 years, and the  $N_d$  and  $W$  seem to be fairly constant with the government taking action to encourage an increase in  $N_d$  and to at least hold  $W$  constant. Thus, there must be other contributing variables at work as well.

The increase in the price of oil, like an increase in  $T$ , would be expected to have a negative shock on the economy, but the expected outcomes are not consistent with the overall outcome of what is occurring in Belgium. An economist would predict decreases in  $N_d$  (if it was a temporary negative shock),  $W$ ,  $Y$ ,  $C$ ,  $S$ , and  $I$ , but an increase in  $r$ . The culprits of consistency here are many:  $N_d$ ,  $W$ ,  $Y$ ,  $S$ ,  $I$ , and  $r$ .

The decreased government transfers for social security is another possible contributor to Belgium's economic trends. One would predict that decreased  $TR$  would decrease  $Y$ ,  $C$ ,  $S$ , and  $I$ , but increase  $r$ . However, overall GDP and  $S_{nat}$  have increased.  $S_{nat}$  has increased as the government has taken specific measures to balance the budget and prepare for the impending social security crisis (explained later), but  $S_{pvt}$  has likely decreased as a result of decreased  $TR$  and the increased  $P_{oil}$ . Investment, though increasing slightly, has been fairly flat, so the inconsistency here seems slight and not noteworthy.

### **Other Types of Shocks**

#### **Terms of Trade shock**

*Background:* The long term picture of Belgium's ToT has been very volatile, but it has been gradually increasing since 2001, probably due to several factors. Belgium's

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<sup>27</sup> Please refer to the appendix for an example of these 3 graphs.

commercial policy, its increase of U.S. imports—in conjunction with the rise of the Euro and the decline of the dollar, the entrance of 12 new, poorer EU member states since 2004 (mainly from Eastern Europe), and decreased Belgian exports—which has led to an increased demand for them (and thus also increased the price of its exports)—are all factors which have caused Belgium's ToT to improve.

Belgian trends are inconsistent with a negative ToT shock, but mostly consistent with a positive ToT shock. An increase in a country's ToT should increase  $Y$ ,  $N_d$ ,  $W$ ,  $C$ ,  $S$ , and  $I$ , but decrease  $r$ . All of these are consistent with Belgium except for  $C$ , which can be explained by the intertemporal situation I explain under the effects of a wealth shock.

### **Wealth shock**

*Background:* Belgian Nominal and real GDP has been increasing for at least the past 23 years, with the exception of 1993, due to the 1992 Exchange Rate Crisis. However, there have been a few years in which the growth of the Belgian GDP dropped below the trend line. Most recently it did so in 2003 and it has stayed on or below the trend line since.

Thus, Belgian data is inconsistent with a negative wealth shock, but somewhat consistent with a positive wealth shock. The latter would increase  $N_s$  (if the substitution effect dominates for Belgian citizens),  $W$ , and  $C$ , but decrease  $S$ ,  $I$  and  $r$ . Because it increases  $C$  but decreases  $S$ , it also reduces the CA surplus. It is impossible to say whether it would be permanent, but a positive wealth shock is consistent with all but Belgian's  $C$ ,  $I$ , and  $N_s$ .

The inconsistency with C may be explained because of the intertemporal situation at work in Belgium right now. As the Belgian government enacts policies to correct its social security situation in light of its ageing population, its citizens are likely consuming less in Y1 in anticipation of less TR in Y2. The inconsistency with I is relatively minor since I is fairly flat and is only increasing very slightly. The inconsistency with Ns can be explained by the socialized system that Belgium has, including the high and long duration unemployment benefits that the country has had. As Belgium decreases and shortens the duration of these benefits, a positive wealth shock may cause an increase in Ns that is consistent with substitution effect theory. Additionally, if the income effect dominates for Belgian citizens, there is no inconsistency with Ns because people work less as they make more money under that assumption, causing Ns and N to decrease.

### **Productivity shock (temporary or permanent)**

*Background:* K and N will improve as Belgium firms increase I and as government policies to encourage job creation, especially among youth, women, and the elderly take root.

Belgian trends are inconsistent with negative productivity shocks, whether temporary or permanent, but largely consistent with positive productivity shocks, especially a temporary one. An economist would predict that a positive temporary productivity shock would increase Y, Nd, W, C, S, and I, but decrease r. All but C holds true for Belgium, again explainable by the intertemporal situation I described earlier. A permanent positive productivity shock would result in the same changes, but also a



decreased  $N_d$  and  $N$ , assuming that the income effect dominates. The changes in  $N_d$  and  $N$  do not hold with what I expect to see happen in Belgium in a “permanent” situation.

### **Consumption shock**

*Background:*  $C$  has generally been decreasing since 1993 (as a percent of GDP).

Belgian data is inconsistent with a positive  $C$  shock, but consistent with a negative  $C$  shock. An economist would predict a decrease in  $C$  to cause an increase in  $S$  and  $I$ , but decrease  $r$ . This is what is occurring, but the governmental policies are more likely the actual causation variables.

### **Investment shock**

*Background:* Investment has been slightly increasing, but has been relatively flat.

Belgian data is inconsistent with a negative investment shock, but consistent with a positive  $I$  shock. One would predict an increase in  $I$  to also result in an increase in  $r$ ,  $S$ ,  $Y$ , and potentially even in  $N_d$ , and  $W$ . These are consistent, but the governmental policies are probably the driving force behind these changes. However, the government policies, especially the one requiring less social security contributions for their employees, have likely encouraged Belgian firms to increase their  $I$ , contributing to the trends in these other areas.

### **Belgian Monetary Policy**

Belgium’s membership in the EU and adoption of the Euro as one of the early members of ‘the snake’ and the Treaty on European Monetary Union (EMU) are fundamental components of its macro policy mix. Some of the important background

context for Belgium's monetary policy are determined by membership in this regional organization and adherence to its required rules monitoring growth, policy, and the other elements of the EU acquis. The adoption of the Euro, the European Central Bank, and the expansion of the EU to include poorer Eastern European countries are factors that have all impacted the original EU member states in various ways. This is true for Belgium.

Within this context, over the last three decades Belgium has pursued a monetary policy recognizing that "European integration was a way to counterbalance centrifugal tendencies and to 'anchor' national macroeconomic policies in a European framework."<sup>28</sup> Belgium pursued a stable exchange rate policy and "participated in the European exchange rate arrangements, initially the 'snake' and later the Exchange Rate Mechanism of the EMS."<sup>29</sup>

The Belgian Franc was pegged to the Deutschmark (DM) during the 1980s/early 1990s because the DM was the strongest regional currency. However, this changed with the adoption of the Euro. The Belgian Franc was then permanently pegged to the Euro, approximately at a rate of 1 Euro = 40.3399 Belgian Francs. The European Central Bank (ECB) has had to deal with the rigidity of this exchange rate and those of the other European currencies that were abandoned in favor of the Euro. This dynamic presents real challenges for the ECB. Yet, it has managed to implement sound monetary policy for the EU countries. The Euro has grown tremendously in value against the dollar since

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<sup>28</sup> Ivo Maes and Lucia Quaglia, "*The Process of European Monetary Integration: a Comparison of the Belgian and Italian Approaches*," available at [http://findarticles.com/p/articles/mi\\_qa5480/is\\_200312/ai\\_n21342300/pg\\_3](http://findarticles.com/p/articles/mi_qa5480/is_200312/ai_n21342300/pg_3), accessed May 13, 2008.

<sup>29</sup> Ibid.

its inception not that long ago. Using the direct approach for Belgium, this means that the Euro has been appreciating and the dollar has been depreciating.

The central bank in Belgium is called the *Nationale Bank van België* in Dutch, or the *Banque nationale de Belgique* in French. In coordination with government efforts to balance the budget and relieve the high level of public debt, the *Banque nationale de Belgique* has followed a primarily contractionary monetary policy in recent years. Its policy has not been overly contractionary, but has been on target with what is needed within Belgium. The result is that the country has kept inflation in check, below 2% in the early 2000s, up to 2.8% in 2006 and back to 2.1% in 2007.<sup>30</sup> This has not affected Belgium's growth, as GDP continues to increase.

In graphical terms, the *Banque nationale de Belgique*'s contractionary monetary policy shifted the Liquidity curve and the Real Money Supply line of the Assets Market downward and to the left, respectively. This resulted in the LM curve of the IS-LM-FE graph contracting. In the short run, this normally means a decrease in  $y$  (GDP), a decrease of  $I$  and  $S$  along the IS curve, and an increase in  $r$ , all shown by a move from Point A to Point B. In the long run,  $r$  typically remains higher than it was originally, but  $y$  (GDP) depends on what happens to the LRAS line, the FE curve, and the IS curve. In Belgium, GDP has increased almost every year since 1985. This is inconsistent with the short run graphical (and theoretical) prediction, but may be explained by a long run perspective where multiple curves are shifting at the same time. This could result in a move from Point B to Point C, Point D, or a move to another point in the direction of

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<sup>30</sup> Index Mundi, "Belgian inflation rate," available at [http://www.indexmundi.com/belgium/inflation\\_rate\\_consumer\\_prices.html](http://www.indexmundi.com/belgium/inflation_rate_consumer_prices.html), accessed April 22, 2008.

Points C and D. (To see these graphical changes, please refer to my hand drawn graphs labeled “Monetary Policy Graphs” that are included as a separate attachment).

Belgium appears to be generally using government policies other than monetary policy to combat its relatively high unemployment. In the early 2000s, the nation experienced unemployment in the 7-8% range. In 2005, it soared to 12%. This is the same year that the government was unable to balance its budget. Thus, it appears that the government may have taken action through increasing G and TR (and /or further reducing T) and the central bank may have pursued an expansionary monetary policy during that year. From the data I have, which is incomplete because some of it only goes through 2000, I can not decisively come to this conclusion, but it makes sense. The policies worked because in 2006-2007, Belgium’s unemployment level fell back to more normal levels of a little over 8%.<sup>31</sup>

### **Belgian Current Account Balance - Recent Trend**

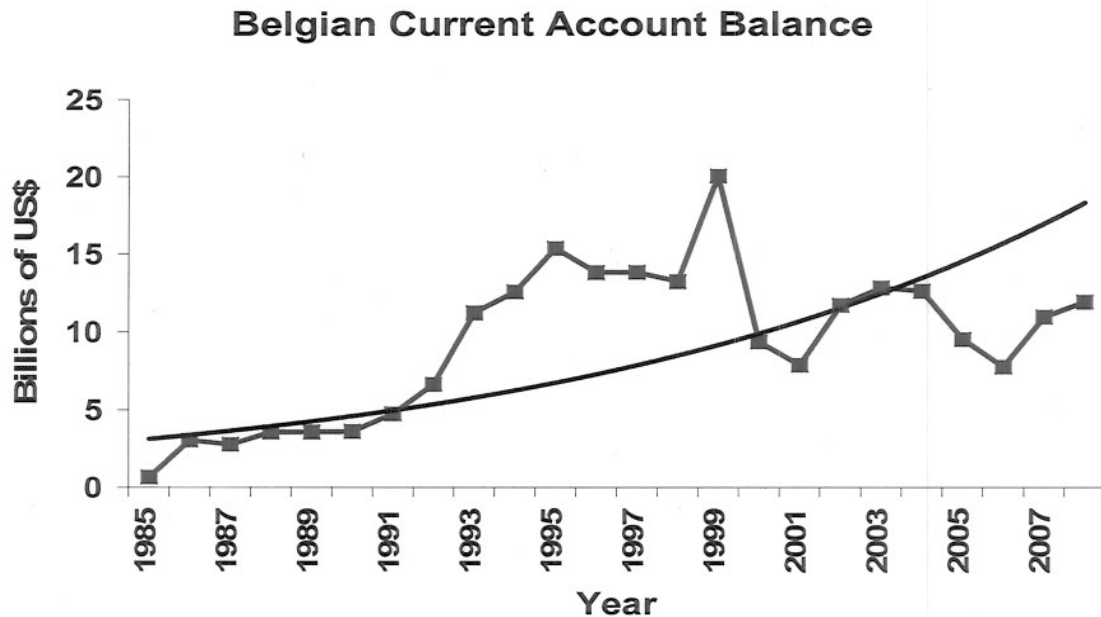
Belgium has been running a positive current account balance in recent years, ranging in value between approximately \$20 billion at its peak in 1999 and \$7.9 billion at its low just two years later. In the longer term picture, Belgium’s current account balance has been volatile for as far back as I have data. Since 1985, it has gone up and down a few times, although the trend line demonstrates that the overall trend is a gradual increase. This was true from 1985 to 1999, but it has been on or below the trend line since then. Graph 23 depicts this. Belgium has been saving more than investing, so it

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<sup>31</sup> Index Mundi, “*Belgian unemployment rate*,” available at [http://www.indexmundi.com/belgium/unemployment\\_rate.html](http://www.indexmundi.com/belgium/unemployment_rate.html), accessed April 22, 2008.

has the following situation:  $S > I$  and  $CA > 0$ . Thus, it is a net lender with respect to the rest of the world.

**Graph 23:**



#### **Analysis of Potential Causes of Belgium's Recent CA Evolution**

There are several possible explanations for the recent trend in Belgium's current account balance, CA. An increase in  $I$  may best explain the most recent dynamics below the trend line. A positive wealth shock may also be contributing to the lower CA surplus since the late 1990s. This is because both an increase in  $I$  and a positive wealth shock (which increases  $C$  and lowers  $S$ ) lowers the CA surplus. A positive terms of trade shock, and a positive temporary productivity shock may also be contributing to recent trends in the Belgian CA and their economy overall, which has seen decreases in  $C$  and  $G$ , with  $I$  being fairly flat but increasing very slightly. Most of the other possible explanations are less consistent with Belgium's economic situation in recent years. However, even the shocks that hold some valid explanatory power for Belgian trends are

generally not completely consistent with what an economist would predict. This probably indicates that a few shocks are at work simultaneously.

### **Social Security Transfer Program**

Belgian's social security transfer program is a pay as you go system. This means that it is a direct transfer from today's working age individuals to today's retirement age individuals. Given the current demographic trend of an ageing Belgian population, the current Belgian social security system is not sustainable without changes. Without changes, more money will be required of relatively fewer workers to support the transfers to the growing elderly population.

The Belgian government is pursuing this objective through a couple of related policies. One policy they are implementing is reducing the number of early retirement opportunities. Belgium is also encouraging job creation and prodding more of its citizens to join the labor force, especially women, youth, and some who have already retired.

They could take several other steps to further improve their financial situation and avoid the looming social security crisis. These steps include eliminating the early retirement plan rather than reducing it, raising the normal age at which people can begin receiving social security, decreasing the high social security benefit it pays each elderly citizen, and encouraging more young laborers to immigrate to Belgium from Eastern Europe and North Africa. Each of these options would help Belgium's financial situation, but may be untenable for political reasons.

### **Part 5 – Conclusion and Future Challenges:**

A number of important geopolitical events in the last three decades, Belgium's membership in the EU and its adoption of the Euro, along with its domestic responses have impacted recent developments in its economy. The nation has been marked by an increasing Real GDP, a balanced budget, a CA surplus, improved terms of trade, decreased openness, high unemployment, an ageing population, a pending social security crisis, and a contractionary fiscal and monetary policy meant to keep inflation low and increase national savings to avoid a social security disaster. This has been balanced with select expansionary policies to fight the high employment.

Belgium's GDP, both real and nominal, has generally increased since the mid 1980s. A downturn in Belgium's Real GDP from 1992 to 1993 was due to the European Exchange Rate Crisis. Another downturn from 2002 to 2003 is likely due to the creation of the Euro in 2002 and the deepening of the Transatlantic rift caused by the Iraq War. Consumption and government purchases of goods and services are on the decline, while investment is slightly rising. The Belgian government is balancing their budget and running a Current Account surplus, meaning that saving is greater than investment.

Belgium's trade and commercial policies during the last decade have been sound. They have been characterized by decreasing openness, promotion of their exports, volatile terms of trade that are on the rebound since 2001, a lot of trade within Europe, and gradually increasing exports to the U.S.

During the last ten years, Belgium's economic policies have also generally been sound and have moved the country forward in its key problem areas. This has resulted in high output growth measuring around 3 percent in 2006. However, the country faces several major challenges in the years ahead. The output growth figure is estimated to

drop to 2.2 percent for 2007-2008, Belgium has an ageing population, and the nation continues to have high and demographically uneven levels of unemployment.

In light of these challenges, the Belgian government must take further proactive steps. Belgium needs to further its policies in these areas: job creation, increasing employment levels [particularly for women, youth, and the elderly], increasing labor mobility, tax cuts, limits on unemployment and social security benefits, and elimination [not simply reduction] of early retirement options.

As they take these measures, they need to remember that their fiscal policy has limits. For instance, tax cuts will likely reach a limit in their ability to encourage more people to work. As their disposable income increases, Belgians' may at some point be more influenced by the income effect than the substitution effect. This would mean that people may work less because they have more money and can afford more leisure. Additionally, the more Ricardian they are, the more of their increased income they will save and the less they will consume. The less they consume, the less the Belgian economy will grow. This phenomenon is more likely to occur if Belgians believe their income increase to be temporary. If, however, they perceive it to be permanent, they will be more likely to consume most of their increase in income, thereby increasing GDP. Thus, it is in the best interest of the Belgian government to use a robust public relations campaign to convince its citizenry that the income increase is something they can count on for the future.

Whatever policies it takes on social security, the Belgian government must be careful that its policies to encourage job creation do not hinder the overall effort to continue providing social security for its older citizens without going into debt. The



potential problematic policy is the one which decreases the required social security contributions from firms on behalf of their workers. This encourages job creations for reasons I outlined earlier, but means that even more money for social security benefits must be raised from other sources.

Belgium's decrease in government purchases of  $G$  and its decrease in transfer payments for social security are probably the most likely root causes of its recent trends toward increasing  $S$  (more so than  $I$ ). Thus, Belgium has a  $CA > 0$  and is a net lender to the rest of the world. However, there are multiple other shocks that these policies have caused that reinforce Belgium's economic trends. Positive shocks in wealth,  $I$ ,  $ToT$ , temporary productivity, and a negative shock in  $C$  may also be contributing to recent trends in the Belgian  $CA$  and their economy overall.

Tighter monetary and fiscal policies and social security reform during the 1980s and 1990s enabled Belgium to balance its budget during the first few years in the twenty-first century (except 2005).<sup>32</sup> In recent years Belgium has continued to pursue a generally contractionary fiscal policy to coincide with its contractionary monetary policy. Belgium has cut tax rates and funded the tax cut by the small budget surplus it has had in a few recent years.<sup>33</sup> In addition, as a member of the Growth and Stability Pact (GSP)—which is central for Belgium—it has developed the Belgium Stability Programme to facilitate its fiscal consolidation, including balancing the budget and governing social security funding. Any individual policies that were more expansionary in nature were aimed at fighting Belgium's high unemployment.

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<sup>32</sup> Encyclopedia Britannica Online, available at <http://www.britannica.com/eb/article-24988/Belgium>, accessed April 22, 2008.

<sup>33</sup> Christian Fahrholz and Philipp Mohl, "Fiscal and Monetary Policy in Belgium, France, Germany, Luxembourg, and The Netherlands," April 2003, available at [http://www.ezoneplus.org/archiv/ezp\\_wp\\_17C.pdf](http://www.ezoneplus.org/archiv/ezp_wp_17C.pdf), accessed April 21, 2008.