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## Forecasting Child Allowances with International Aspects

Identifying and Explaining the Rise in WKB  
Expenditure

# Master Thesis



## Forecasting Child Allowances with International Aspects

Identifying and Explaining the Rise in WKB Expenditure

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## **Abstract**

The supplements that the Netherlands pays with respect to the WKB, an income dependent child allowance, have increased sharply from 2010 to 2011. Supplements are paid to families that have both a Dutch and a foreign right on child allowances due to cross border work or living situations. The Dutch entitlement has to be greater for supplements to occur and its size depends on the Dutch benefit level relative to the foreign benefit level.

It was found that the influx of Polish immigrants, together with a rise of the Dutch WKB benefit levels in 2011, were major contributors to the increase in WKB expenditure. The projections of future levels of WKB expenditure need to take into account the immigration of East-European workers and changes in the benefit amounts.

# Research Question

The supplements that the SVB pays when applying the EU priority rules and the WKB expenditure involving Morocco are the subject of this thesis. These WKB related payments have increased sharply over the years, especially from 2010 to 2011. The ministry of Social Affairs and Employment, who oversees the SVB, ordered an investigation into this development. The main points of investigation are: what are the determinants of WKB expenditure? And which factors have caused WKB expenditure to increase? Moreover, the SVB would like the results of this investigation to improve their ability to forecast future levels of WKB related expenses.

This thesis will try to answer these questions by identifying and analysing the factors that are driving WKB expenditure. In addition, the factors found to cause the increase in the WKB expenditure will be used to make predictions on its future trajectory.

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# 1. Introduction

This thesis considers the benefits paid by the Dutch government to families with children. There are households within the European Union that are eligible to receive these allowances from more than one country. This can occur due to cross border work or living conditions. These households are paid according to priority or anti-accumulation rules drafted by the European Union. The rules determine which country has the priority to pay the benefits. Supplement payments are required from a country if that country does not have the priority to pay and its benefit levels are higher than the country that has the priority.

The SVB is a Dutch government institution that is responsible for the execution of the first pension pillar and several child related benefits, among which the supplement payments of the WKB. This thesis is a result of the request from the Ministry of Social Affairs and Employment to the SVB to investigate the sudden rise in WKB expenditure. Moreover, the SVB wanted the results of the investigation to help improve their forecasts of future levels of WKB expenditure.

The thesis is constructed in the following way: the first section offers a clear description of the situation. Section two compares the child related benefit levels of several countries. Section three presents the data and it's processing and gives a statistical overview. The important variables are identified and further analysed in section four. Section five uses the found determinants to forecast future expenditure. Section six concludes.

## 2. Situation Description

There are several different child benefit programs in the Netherlands. The four main programs are listed here. First, the AKW (Algemene Kinderbijslag Wet) is a compensation for costs related to the child's upbringing. The AKW is eligible to everyone working or living in the Netherlands. Second, the WKB (Wet Kindgebonden Budget) is an income dependent allowance. It is paid to the parents when their combined income is below a certain level as a compensation for the costs involved in raising their children. Subsequently the TOG (Tegemoetkoming Ouders Thuiswonende Gehandicapte Kinderen), which will be cancelled per 2015, is a benefit for parents that have to support a handicapped child. Finally the WKO, which was implemented in 2012, pays for the childcare services of working parents if their income is below a certain level.

This thesis focuses on payments made in accordance to the Law on Child-Related Budget (WKB), the mean tested child allowances. The right on WKB exists when parents:

- Have one or more children younger than 18 years of age
- Have the Dutch nationality or a legitimate residence permit
- Have a combined income that is below a certain maximum threshold
- Receive child benefits (AKW), or have children aged 16-17 that they support for an important part

In the case that one of the parents' lives or works abroad, the right on children related benefits can exist for two countries. Inside the European Union, priority rules apply in this situation to make sure that parents don't receive too much or too little. These rules state that parents should receive benefits to the size of whichever of the two countries has the highest level of child benefits. These benefits are then paid out by these two countries in accordance to the priority rules. In most cases, the country in which the parent works has the priority to pay the full amount. If this amount is lower, however, than the level of benefits in the other country, the other country has to pay an additional amount until the levels are equal. These supplement payments are the focus of this thesis.

In addition to countries within the European Union, several countries have bilateral treaties with Netherlands concerning social security payments. Morocco and the Netherlands signed an international treaty concerning the social security arrangements in 1973. This treaty applies to

employers and their families with the Dutch or Moroccan nationality. In effect, the Moroccan nationality becomes equivalent to the Dutch nationality. The export of social security benefits to Morocco is possible when the person entitled to Dutch benefits lives in Morocco. If a parent works in the Netherlands and his or her children live in Morocco, the benefits should be exported to the caretaker of those children in Morocco. If that Moroccans' household income is below a certain threshold, they are entitled to receive WKB from the Dutch government. In that case the child allowances will be paid out by the SVB.

The Sociale Verzekeringsbank (Social Insurance Bank) or SVB is a Dutch government organization that implements national insurances schemes such as the first pillar pension benefits (the AOW). Moreover, they are the government body in the Netherlands that is responsible for paying out the regular child benefits (the AKW) and other benefit programs. The WKB allowances are in most cases paid by the Dutch tax authorities. The SVB is responsible for the processing of the WKB benefits when the Netherlands has to pay a supplement and when the WKB allowances are exported to Morocco.

**2.1 WKB**

The income dependent WKB program was implemented in 2009. It was introduced as a replacement of a previous temporary arrangement and aims to compensate parents for child related expenses. Table 2.1 shows the WKB benefit levels per child for 2012. Benefit levels are subject to change and have been repeatedly modified over the years, which will be shown in section three.

<b>Table 2.1: WKB Levels per Child per Year, 2012<sup>1</sup></b>	
<b>1 Child</b>	€ 1,017
<b>2 Children</b>	€ 739
<b>3 Children</b>	€ 554
<b>Each additional Child</b>	€ 106

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<sup>1</sup> The amounts given are per child per year, meaning that for two-child families, each child receives € 739 annually. To calculate the amount the household receives you have to multiply the benefit with the number of children. All benefit levels in this thesis are presented in this way to facilitate comparisons. The amounts given are the maximum levels for households with children that have a combined income level that is lower than € 26,147. If income exceeds this level, the difference will be multiplied by the reduction rate and then subtracted from the benefit. The reduction rate was 7.6% in 2012.

Compensation for education costs are incorporated in the WKB with children between the ages of 12-17 receiving a supplement. This is € 226 per year for the ages 12-15; € 290 for the 16 and 17 year olds. Thus, on average households with lower incomes and older children are entitled to more WKB per child.

The WKB is divided into four different categories. In the first category there are the cases that have only a Dutch right on child benefits. These are families that work and live only in the Netherlands. In the second category, the Dutch right overlaps with a foreign right on child benefits but the Netherlands has the priority to pay. The foreign countries have to pay out a supplement in case the Dutch benefit level is lower than theirs. In both the first and the second category the Dutch Tax authorities pay out the benefits; the SVB's role is limited to exchanging information with the tax authorities and the foreign institutions.

The third category consists out of households that have both a Dutch and a right on child benefits and a right from another EU member state, but where the foreign country has the priority to pay. Only when the foreign allowance is lower than the Dutch benefit, the SVB has to pay out a supplement to equate the total amount of child benefits to the Dutch level. Children living in Poland, the Netherlands, Germany and Belgium together account for the majority of the cases for this category. Category 4 applies to those who have a right on WKB according to the bilateral social security agreement with Morocco. In that case the WKB is paid out by the SVB and the case is considered to be category 4.

The SVB provides the tax authorities the households that are eligible for child benefits. The Dutch tax authority then calculates the amount of WKB a family is entitled to and pays out the first and second category. This information is passed on to the SVB, who consequently exchanges information with the foreign institutions in charge of handling the children benefits abroad. The SVB then uses this data to compute whether and how much supplements they need to pay to the households in category 3 and 4.

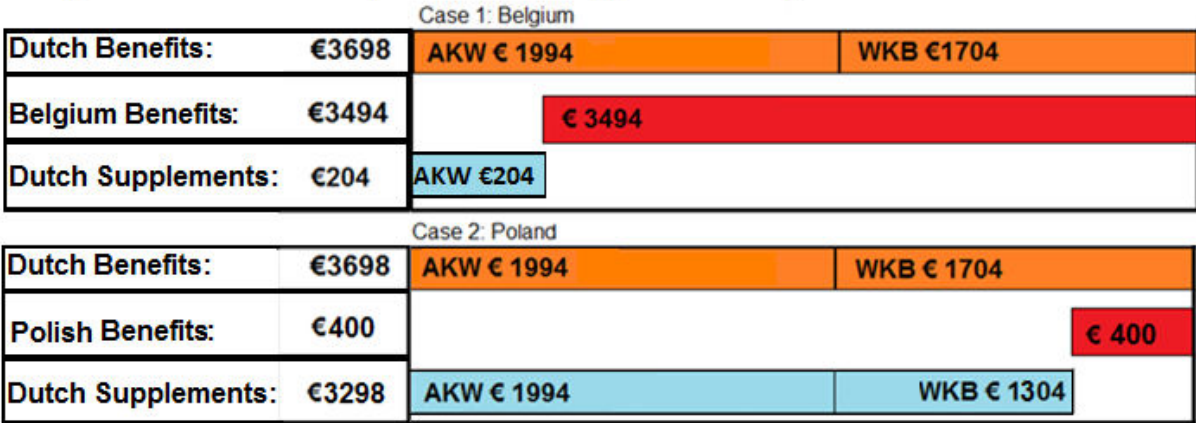
## **2.2 Supplements**

In order to determine the size of the supplements, the level of foreign child-related benefits is compared to the Dutch level. For the Netherlands, these child-related benefits are the AKW, the TOG, the WKO and the WKB. The TOG, and since 2012 the WKO, benefit programs apply to only very few households and are not relevant in the majority of cases. If a family has a combined Dutch

entitlement that is larger than the level of child-related benefits they receive from abroad, the SVB has to pay a supplement. The size of the supplement determines how the expenses related to the supplement are categorized. The SVB first categorizes the supplement as a part of the normal child benefits (AKW). When the supplement is larger than the AKW entitlement, the remainder of the supplement is labelled as WKB expenditure.

Diagram 2.1 graphically illustrates this with two examples<sup>1</sup>.

**Diagram 2.1: The Computation of Supplement Payments**



The first row indicates the maximum benefit amount a household is entitled to, which is equal to the Dutch level for both examples. Below is indicated how this amount is divided between the two countries. In case 1 there is concurrence of benefits with Belgium. This household has a combined Dutch right on child related benefits (€ 1994 AKW and € 1704 WKB) of € 3,698. This is slightly larger than the Belgium entitlement of € 3,494. Belgium pays out their full entitlement amount and the Netherlands has to pay a supplement to equate the total benefits to the Dutch level. This supplement, € 204, is small enough that it fits in the AKW classification. Hence, this category 3 case will be registered as having received € 204 AKW and zero WKB. Case 2 involves child-related benefits from both Poland and the Netherlands. The Polish benefit amounts to € 400 and thus the Dutch supplement is considerable: €3,294. This supplement is too big to fit solely in the AKW, and € 1,304 will be categorized as WKB expenditure.

<sup>1</sup> The subject here is a household with two children whose income is significantly small to be eligible to receive income dependent benefits in the Netherlands, Belgium and Poland. The Netherlands does not have the priority to pay and needs to pay a supplement, thus these households belong to category 3. If the supplement is bigger than the AKW entitlement, the remainder will be categorized as WKB. The annual benefit amounts per household are used in this example, in the rest of the thesis amounts are given per child per year. It is important to note that these are simplified examples; the comparison of benefit levels is in reality done on a monthly basis and households could be eligible for other child benefit programs as well.

## 2.3 Priority Rules

Inside the European Union, the principle of equal treatment states that each member state has to treat a national from another EU country the same as its own citizens. This legislation is put in place to facilitate the free movement of citizens between member states. Citizens from a member state can freely move and work everywhere inside the EU. They will obtain the same rights and obligations, such as participation in benefit programs, as a national of the host country. As a consequence, social security systems of the EU countries have to be coordinated. This is necessary to handle the cases where benefits programs from two countries overlap. For example, an Italian working in Germany can be entitled to both Italian and German children benefits. Therefore, the EU has put rules into force to make sure that citizens don't receive too much or too little benefits. These priority or anti-accumulation rules apply to all member states of the European Union and state the criteria that determine the amount each country should pay.

The main rule is that the country in which the parent works has the priority to pay. If both parents work in different countries, the country where the children live has the priority<sup>1</sup>. For example, consider a Polish worker in the Netherlands with a family in Poland. This household falls into category 2: the Netherlands has the priority and pays the full benefit. Now assume the Polish mother starts to work in Poland. Consequently, the priority shifts to Poland and the household falls into category 3. The Polish authorities have to pay out child benefits and the Netherlands pay the supplement if the Polish benefits are below the Dutch level.

Table 2.12 shows the possible situations for households and how they are categorised. The second column states where the parents live and the country in which the parents work is shown in the third column. When the work status and the location of both parents and children are known, the country that has the priority to pay can be determined, which is shown in the next column. When the priority lies abroad, the size of the benefit level compared with the Dutch level is relevant. If this level is lower than in the Netherlands, the SVB has to pay a supplement. These supplements are paid out by the SVB; in other cases the tax authorities are responsible for the transaction as is shown in the last column. Finally, the column '*Category*' tells us under which category this type of household falls.

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<sup>1</sup> A large majority of all cases involve two countries. Exceptions, such as cases in which parents work in two different countries while the children live in a third, are very rare and not considered here.

**Table 2.2: Categorization of Households eligible for WKB<sup>1</sup>**

	Country of Residence	Country of Work	Priority	Benefit Level (Abroad vs. NL)	Supplement Payment NL	Category	Paid by
<b>1.</b>	Parent 1: NL  Parent 2/KIDS: NL	NL  No Work/NL	n.a	n.a	No	1	Tax Authority
<b>2.</b>	Parent 1: NL/Abroad  Parent 2/KIDS: NL	Abroad  NL	NL	n.a	No	2	Tax Authority
<b>3.</b>	Parent 1: NL/Abroad  Parent 2/KIDS: NL	Abroad  No Work	Abroad	↗ Lower  ↘ Higher	Yes  No	3 (4)  n.a	SVB  Abroad
<b>4.</b>	Parent 1: Abroad  Parent 2/KIDS: Abroad	Abroad  No Work/Abroad	n.a	n.a	No	n.a	Abroad
<b>5.</b>	Parent1: Abroad/NL  Parent 2/KIDS: Abroad	NL  Abroad	Abroad	↗ Lower  ↘ Higher	Yes  No	3 (4)  n.a	SVB  Abroad
<b>6.</b>	Parent 1: Abroad/NL  Parent 2/KIDS: Abroad	NL  No Work	NL	n.a	No	2	Tax Authority

<sup>1</sup> The circumstances in the first two columns determine the categorization of each household. As we only consider cases concerning one or two countries, it is assumed that the second parent lives and works in the same country as the children. When the country of residence is Morocco, the household would be classified as category 4 in the fifth case. In the first and fourth case there is no international overlap in benefits, so the priority status is not applicable there.

### 3. Benefit Levels

The differences in benefit levels between countries are relevant for this thesis. This section will present and compare the allowances of the Netherlands, Germany, Belgium, Poland and Morocco<sup>1</sup>. The benefit levels are always given per child per year to facilitate comparisons between countries.

#### 3.1 Netherlands

For the Netherlands, both the AKW and the WKB levels are shown below in table 3.1. The WKB allowance is the largest for the first child, each additional child reduces the additional benefit. This is different from the AKW, whose benefit levels are constant for each child. Both the WKB and the AKW involve higher benefits for older children, for the AKW this increase starts from an earlier age. WKB levels were raised for families with more than one child in 2011.

WKB	2010	2011	2012	AKW	2009-2011	Jan.-June 2012	July 2012-13
<b>1 child</b>	€ 1,011	€ 1,011	€ 1,017	<b>0-5 years</b>	€ 780	€ 754	€ 767
<b>2 children</b>	€ 661	€ 733	€ 739	<b>6-11 years</b>	€ 947	€ 916	€ 931
<b>3 children</b>	€ 502	€ 609	€ 554	<b>12-17 years</b>	€ 1,114	€ 1,078	€ 1,095
<b>4 children</b>	€ 403	€ 528	€ 442				
<b>Additional sum &gt;4 Children</b>	€ 51	€ 189	€ 106	<b>16-17 years</b>			
<b>Assessment Income</b>	€ 28,413	€ 28,413	€26,147	<b>1 child</b>	€ 1,114	€ 1,078	-
<b>Reduction Rate</b>	7.6%	7.6%	7.6%	<b>2 children</b>	€ 2,506	€ 2,475	-
<b>Supplement: 12-15 years</b>	€ 226	€ 226	€ 226	<b>3 children</b>	€ 3,898	€ 3,873	-
<b>Supplement: 16-17 years</b>	€ 290	€ 290	€ 290	<b>4 children</b>	€ 5,603	€ 5,586	-

<sup>1</sup> The Dutch benefit levels were obtained from the SVB, data on the other countries were obtained from 2012 edition of "Social Security Programs Throughout the World: Europe" from the SSA. The Moroccan benefit levels are taken from the African edition and valid as of 2011.

<sup>2</sup> All amounts given are per child per year. To calculate the amount a household receives you have to multiply the benefit with the number of children. AKW benefits are constant for each child, except for children born before 1995 who receive different amounts; in the 2<sup>nd</sup> half of 2012 these children all had turned eighteen. For the WKB, the amounts given are the maximum levels a household can receive for each child when its combined income is below the assessment income. If income exceeds this level, its difference will be multiplied by the reduction rate, which was 7.6% for all three years, and then subtracted from the benefit level.

In 2012 benefits decreased again to around € 150 above their 2010 levels. Also, the assessment income level was reduced in 2012, lowering the WKB benefits for higher income families.

The height of the benefit levels and the qualifying conditions are determined by law and can be adjusted by the government. Between 2010 and 2012, the WKB was changed every year; the AKW has been less volatile but was changed twice in 2012. The trajectory of the WKB can be explained by political changes. The peak in 2011 happened because two Christian parties that wanted to promote larger families, were part of the governing coalition that ruled until 2010. After that a new government was formed that chose to adjust the WKB levels once again. The current government has planned additional revisions to the WKB arrangement, which will be further discussed in section five.

### 3.2 Germany

Table 3.2 portrays the German situation. The German benefits are the equivalent of the Dutch AKW and are available to everyone who lives in Germany. It can be seen that the German benefit levels are substantial higher than the Dutch ones, especially for larger families. In almost all the cases the Dutch child-related benefit levels will be lower than the German ones. German levels are also high compared to other OECD countries; it spends 3.07% of its GDP on family policies compared to the 2.61% OECD average (OECD, 2010). In contrast to the Netherlands, Germany pays out higher amounts for each additional child. This is done by to stimulate larger families, as the country faces a rapidly aging population. Germany’s aging problem is one of the largest in Europe with a fertility rate of 1.36 children per women, compared to an OECD average of 1.74 (Central Statistical Office (GUS), 2012).

<b>1 child</b>	€ 2,208
<b>2 children</b>	€ 2,208
<b>3 children</b>	€ 2,232
<b>4 children</b>	€ 2,319
<b>Additional sum &gt;4 Children</b>	€ 2,580
<b>Income Dependent Supplement</b>	€ 1,680

<sup>1</sup> The amounts are valid as of 2011 and are given per child per year, meaning that for two-child families, each child receives €2208 annually. To calculate the amount the household receives you have to multiply the benefit with the number of children. The levels given are the basic amounts; families can be entitled to more. Other child benefit programs exist among which an income dependent supplement with a maximum of € 1,680 a year.

### 3.3 Belgium

The size of the Belgium benefit levels are comparable to Germany's, see table 3.3. However, the benefit is considerably lower for one child families. Both Belgium and Germany have increasing benefit levels per additional child, in contrast to the Netherlands. Similar to the Netherlands, benefits are higher in Belgium after children reach a certain age; Belgium pays out age supplements from the age of six. There are also several additional arrangements in Belgium that can increase the effective allowance. The amounts are higher as well if a household's annual income is below € 27,000, in which case it is eligible to receive additional income dependent benefits. We can conclude that in the far majority of cases, Belgium benefit levels will be higher than their Dutch counterparts.

<b>1 child</b>	€ 1,083
<b>2 children</b>	€ 1,543
<b>3 children</b>	€ 2,026
<b>4 children</b>	€ 2,268
<b>Additional sum &gt;4 Children</b>	€ 2,993
<b>Supplement: 6-11 years</b>	€ 185
<b>Supplement: 12-17 years</b>	€ 282
<b>Supplement: 18-24 Years</b>	€ 713

### 3.4 Poland

Table 3.4 represents the Polish child-benefits which are much lower than the Dutch ones. Poland pays out child support only for households that have incomes below € 1,500 a year. This is a very low threshold, which corresponds to the lower standard of living in Poland compared to that of the Netherlands. We can assume that the far majority of our cases have an income above this level, and the small Polish benefits will thus be paid to very few cases. There are additional assistance programs in place which vary per region. Furthermore provisions exist for children with disability and for single parents.

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<sup>1</sup> The amounts, valid as of 2011, are given per child per year, meaning that for two-child families, each child receives €1,543 annually. To calculate the amount the household receives you have to multiply the benefit with the number of children.

<b>Table 3.4: Polish Child Benefits, per Child per Year<sup>1</sup></b>	
<b>1 child</b>	€ 200
<b>2 children</b>	€ 200
<b>3 children</b>	€ 212
<b>4 children</b>	€ 218
<b>Additional sum &gt;4 Children</b>	€ 235
<b>Assesment Income</b>	€ 1,500

### **3.5 Morocco**

The Moroccan benefit levels, displayed in table 3.5, are similar to those of Poland. Benefits are only paid to those who are insured and pay contributions. Self-employed people are excluded and there is a separate system for civil servants. A parent who works in a foreign country will not pay contributions and the benefits will not be paid to this family. In effect, most of the category 4 cases will not receive any allowances from the Moroccan government.

<b>Table 3.5: Moroccan Child Benefits; per Child per Year<sup>2</sup></b>	
<b>1 child</b>	€ 215
<b>2 children</b>	€ 215
<b>3 children</b>	€ 215
<b>4 children</b>	€ 171
<b>Additional sum &gt;4 Children</b>	€ 39

<sup>1</sup> The amounts, valid as of 2011, are given per child per year, meaning that for two-child families, each child receives €215 annually. To calculate the amount the household receives you have to multiply the benefit with the number of children. Shown are the basic amounts converted from Zloty using an exchange rate of 4.1 Zloty =1 Euro.

<sup>2</sup> The levels displayed are converted from Moroccan Dirham using an exchange rate of 11.1 Dirham = 1 Euro. They are valid as of 2011 and are given per child per year, meaning that for two-child families, each child receives €215 annually. To calculate the amount the household receives you have to multiply the benefit with the number of children. Not the whole Moroccan population is covered by this child related benefit scheme.

## 4. Data

The data consists of all cases known by the SVB to be eligible to receive WKB; i.e. all the cases which the SVB has to exchange information about with foreign institutions or to process themselves. The data is of high quality with very few cases reporting missing data<sup>1</sup>. In total there are 140,227 observations for the years 2010, 2011 and 2012. The main part of the analysis focuses only on category 3 and 4, which accounts for around a quarter of all observations. Variables that are included in this dataset are “*WKB Entitlements*”, “*Category*”, “*Number of Children per Household*”, “*Country of Residence*”, “*Date of Birth*”, “*AKW Entitlements*”, “*Payments from the SVB*” and “*Nationality*”.

Although these important variables were available, it was not possible to obtain direct data on WKB expenditure. Moreover, some of the variables were found to report not the present but past values. Therefore, the data required substantial editing and processing to make it more suitable for analysis.

### 4.1 Data Processing

The variable ‘*Category*’ indicates which category a case belongs to. This is important to know correctly because the analysis is category specific. Our main interest lays with categories 3 and 4 and therefore it is vital that these cases are labelled correctly. However, the reported value for all the relevant years for this variable is the current status of each household<sup>2</sup>. This is a problem because a family’s category could have changed over the years. To solve this issue, additional variables were added to the dataset which reported the category status of each case for each month. However, the other variables report the yearly values so we prefer to transform the category values into years instead of months. To achieve this, the cases that were in the same category for the whole year are assigned to the respective category for that year. The result is shown in Table 4.1 in the ‘*Permanent*’ column. The ‘*Query*’ column shows the original (incorrect) allocation.

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<sup>1</sup> These are all category two, three or four cases. A few category one cases are known because they belonged to the other categories in the past. The variable ‘*Nationality*’ has 8.1% missing values overall, which is 10.7% for category three and four. The reason for this is that the SVB doesn’t require this information in order to process the payments. However, because we do have data on country on residence, information on nationality is not as important. The variable ‘*Age*’ is an approximation because it is calculated at the 1<sup>st</sup> of July for each year by using the reported date of birth for each child. The data was obtained from the SVB’s database by using queries.

<sup>2</sup> The category the cases were in at the moment the query was run (April 2013) is reported. The SVB determines the household’s status every month so the category can fluctuate on a monthly basis. A family which fell under category three in 2010 but is currently a category two case, is reported to be category two in the data, for all the years it has been in the dataset.

Households that changed categories at least once a year need to be assigned to a category as well. Those that belonged to category 3 or 4 for at least one month are assigned to those categories. This is done because they were eligible for WKB payments from the SVB in that month and therefore could have contributed to the WKB expenses. All the other cases were either in category 1 or 2 for a whole year and are thus assigned to them, as they could not have possibly received WKB from the SVB. The final revised numbers are shown in the 'Revised' column. In total, over the year 2010, 2011 and 2012 there were 37,560 children who were eligible to receive WKB from the SVB, 6,496 of which for less than a year but for at least one month. The numbers in the final column give the most accurate number of WKB cases. This sample will therefore from henceforth be used for category 3 and 4 specific analyses.

<b>Table 4.1: Category Reassignment<sup>1</sup></b>				
	<b>Query</b>	<b>Category</b>	<b>Permanent</b>	<b>Revised</b>
<b>Category 1</b>	21,181	<b>1+2</b>	93,788	102,667
<b>Category 2</b>	86,841			
<b>Category 3</b>	23,077	<b>3+4</b>	31,064	37,560
<b>Category 4</b>	9,128	<b>Changed Cases</b>	15,375	-

**Estimating WKB Expenditure**

The subject of this thesis is the development of the SVB’s WKB expenditure. For this reason it is important to determine the level of WKB payments for each case. Unfortunately, this information is not readily available. The dataset does contain information on the WKB and AKW entitlements per household. These amounts represent the benefit level a household is entitled to, considering the number of children and their age and the income level of each household. The entitlements can differ from the paid amounts for several reasons, most importantly because they do not account for the benefits paid by foreign countries.

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<sup>1</sup> The query column shows the original allocation of categories as they were obtained from the SVB database. In the permanent column are the cases that were in the same category for a full year. The households that changed during the year are assigned in the revised column, those that were in category 3 or 4 for a month or more are included in those categories.

The SVB has provided us with quarterly data on the AKW entitled amounts per household and quarterly data on the amounts paid out by the SVB to each household. These two variables, combined with the other data, can be used to calculate estimations of the WKB expenditure. First, we compute the AKW entitlement and the SVB payment per year per child<sup>1</sup>. This gives us the sum of the payments for all the child arrangements (AKW, WKB, WKO and TOG) paid to each child and their AKW entitlement for a full year. Then we subtract the AKW entitlement from the sum of payments to get the amount that is paid in excess of the AKW<sup>2</sup>. Formula 1 shows the calculation that is done for each case.

$$WKB, TOG, WKO \text{ Payment} = SVB(AKW, WKB, TOG, WKO) \text{ Payment} - AKW \text{ Entitlement} \quad (1)$$

Applying this formula will result in an approximation of the payments made by the SVB on the behalf of the WKB, TOG and, for 2012, the WKO benefit programs. Because the TOG and WKO benefit programs consist out of very few cases, these amounts are our crude estimation of the WKB expenditure per child.

We can filter out the payments made on behalf of the WKO and TOG benefit programs to improve our estimates. But first the variable “*WKB Entitlements*” needs to be revised for certain cases. This variable indicates the amount of WKB a child is entitled to, irrespective of whether this is paid by the SVB or the tax authority. It is convenient to replace these amounts with the entitlements the SVB pays. This is done by replacing the WKB entitlements for category 1 and 2 with a zero while the amounts for the cases that were permanently in category three and four are preserved. The WKB entitlements the SVB has to pay for the cases that were in category three or four for less than a year are calculated as well<sup>3</sup>. The revised WKB entitlements are then used to compute the WKB expenditure without the TOG and WKO payments.

The size of the WKB, TOG and WKO payment is compared with the WKB entitlement for each case. If the payment is larger than the entitlement, we assume the surplus to be TOG/WKO payments and

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<sup>1</sup> This is done by adding up the four quarterly amounts and dividing it by the number of children in that household.

<sup>2</sup> The AKW entitlement is only subtracted for cases for which the SVB payments are larger than the AKW entitlement. It is possible that the payment is smaller than the entitlement due to foreign benefits. This happens in category three and four, when the Dutch supplement payment is small. These cases are counted as having received zero WKB, TOG or WKO.

<sup>3</sup> The size of the entitlements for these cases is computed by multiplying the number of months they were in categories 3 or 4 by the average monthly allowance. The average monthly allowance is simply seen as the yearly entitlement divided by 12.

these amounts are therefore not included in our estimate of WKB related expenses. The whole WKB entitlement is thus considered to be WKB expenditure. This can be seen in formula 2.

*If WKB, TOG, WKO Payment > WKB Entitlement:*

$$WKB \text{ Expenditure} = WKB \text{ Entitlement} \quad (2)$$

When the WKB, TOG and WKO payment is lower than the WKB entitlement, the whole payment is marked as WKB expenditure. Formula 3 shows this.

*If WKB, TOG, WKO Payment < WKB Entitlement*

$$WKB \text{ Expenditure} = WKB, TOG, WKO \text{ Payment} \quad (3)$$

Formulas 2 and 3 show how the WKB expenditure is computed for each individual case. The overall WKB expenditure for all cases combined is found by taking the sum of formulas 2 and 3. Hence, we have obtained our estimates for WKB expenditure.

Likewise, we can approximate the benefits paid by foreign countries<sup>1</sup>. The sum of the WKB and AKW entitlements constitute the Dutch benefit level for almost all cases. If the amount paid by the SVB is lower than the combined entitlements, we presume that the payment is a supplement on top of a foreign payment. We can calculate the contributions from abroad by subtracting the payments from the sum of the WKB and AKW entitlements per child. The difference between these amounts is caused mainly by payments from abroad, as is displayed in formula 4. When the amount paid by the SVB is higher than the combined entitlements, there is no question of foreign payment.

*If SVB Payment < (WKB Entitlement + AKW Entitlement)*

$$Abroad = WKB \text{ Entitlement} + AKW \text{ Entitlement} - SVB \text{ Payment} \quad (4)$$

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<sup>1</sup>It is interesting to know the size of the foreign contributions because these are the amounts the SVB doesn't need to pay. It is only relevant for category three and four and therefore only calculated for these cases.

## 4.2 Reliability of the Estimates

There are concerns about the accuracy and reliability of the estimates of WKB expenditure and foreign payments. Whether or not the approximations are reliable depends for a large part on whether the entitled amounts correspond to the actual payments made<sup>1</sup>. Therefore, we investigate the issues that cause the paid benefit to differ from the entitlements. This can happen due to claims and retroactive payments. When it was found that households received too much in the past a claim reduces the benefit payment. Retroactive benefits increase the benefit payments because it turned out that households were entitled to more benefits in the past. This occurs, for example, when a family finds they had a right on child support for a year for which they forgot to apply. These benefits will then be paid retroactively. These effects cause a discrepancy between the entitled and paid sums. Claims and retroactive payments can occur because the benefit level is partly determined by household's income projections. Real income levels can diverge from their projections, causing households to receive too much or too little benefits. The Dutch tax authority takes time to process the income data; hence claims and retroactive payments can constitute over multiple years.

When our data indicates that a household receives a negative benefit from the SVB, we can safely assume that this is a claim. Claims are settled mostly by withholding benefit payments until the claim is reduced to zero. Less than 4% of all cases in category 3 and 4 involve negative payments and thus claims on households<sup>2</sup>. The average claim is roughly € 250. When the sum paid out by SVB is larger than the entitlements, this can mean that there is a retrospective payment. It can also mean that these cases receive additional TOG or WKO benefits. For categories 1 and 2, we find that .5% of the cases receive more than their AKW entitlement. This is 3.5% for categories 3 and 4<sup>3</sup>. The average retroactive payment is roughly € 400.

We would like to test whether our generated estimates are reliable, considering the claims and retroactive payments. Category 2 can be used to check whether the AKW entitlements are equal to

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<sup>1</sup> If the AKW entitlements are not similar to the amounts that are actually paid out under the AKW heading, the formulas will be incorrect. We could not have used entitlements to calculate the share of WKB in the SVB's expenditure. Furthermore the WKB entitlements could not have been used to filter out the TOG and WKO.

<sup>2</sup> The percentage of claims is much lower for category one and two, around a quarter percentage point of all cases. This can be explained by the fact that payments for the categories three and four are more difficult to calculate because information needs to be received and processed from foreign institutions. We have to keep in the mind that only the cases for which the claims are big enough to result in negative benefits show up in the data. Smaller claims and retroactive payments cannot be detected.

<sup>3</sup> A payment larger than the AKW and WKB entitlements could also be caused by eligibility for the TOG or WKO benefit programs. It is unlikely that the TOG and WKO occur more frequently in categories one and two than in categories three and four. Parents with handicapped children are less likely to work abroad and thus less likely to be eligible for the TOG. Therefore it is likely that the majority of the 3.5% are in fact retroactive payments. If we assume that the .5% in category one and two are only TOG and WKO cases, it still leads us to the conclusion that at least 3% of the cases in categories three and four involve retroactive payments.

the AKW payments<sup>1</sup>. A Pearson Correlation test between the variables AKW entitlements and payments by the SVB, both measured per child per year, yields a significant correlation of .917\*\*. These results provide us with evidence that the generated estimates should be crudely accurate. Category 3 and 4 do suffer more from retroactive payments and claims than category 2. However, the two effects work in opposite directions; claims overstate the entitlements while retroactive payments understate them. It was estimated that the two effects are of roughly the same size, therefore the overall impact of claims and retrospective payments will probably not be too large as they cancel each other out.

In conclusion: the effects of claims and retrospective payments are causing doubts on the accuracy of the generated estimations. We are unable to remove all doubts on the accuracy of the estimates. However, we can argue that it is rather likely that they are accurate enough to justify their use in analyses.

### **4.3 Data Analysis**

This section provides an overview of categories three and four concerning the number of cases and the statistics related to WKB expenditure. Furthermore, it is shown how these figures are linked to different countries. Table 4.2 provides an overview of the values of several important variables.

It can be seen that the number of WKB cases has increased significantly since 2010. The number of cases is seen to rise in 2011 and to stay almost constant the year after. The sum of WKB and the AKW entitlements here represents the amounts the SVB is supposed to pay. The AKW and WKB entitlements increase both at the same rate, along with the rise in the number of cases. The mean entitlement per year is also given; the increase reflects the higher legal WKB levels. Payments made by the SVB are lower than the combined entitlements, mainly due to foreign contributions, whose estimations are shown as well. These payments from abroad lower the amount the SVB has to pay out for both for the AKW and the WKB. Given are two measurements of WKB expenditure, the difference between the two represents payments to the TOG and, in 2012 the WKO.

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<sup>1</sup> Category two can be used for this purpose because for these cases the WKB is paid out by the Dutch tax authority and is not included in the SVB Payments. Hence, we can compare the SVB payments to the AKW entitlements, which should be equal except for claims and retroactive payments.

<b>Table 4.2: Overview Categories 3 and 4<sup>1</sup></b>			
	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>WKB Category 3 and 4 Revised</b>	10,637	13,380	13,543
<b>WKB Entitlements</b>	€ 5,579,510	€ 8,290,259	€ 8,550,428
<b>AKW Entitlements</b>	€ 8,996,128	€ 11,464,406	€ 11,570,868
<b>Average WKB Entitlement</b>	€ 525	€ 620	€ 631
<b>Average AKW Entitlement</b>	€ 846	€ 857	€ 854
<b>Total SVB Payments</b>	€ 10,033,456	€ 14,216,737	€ 16,191,324
<b>WKB, TOG &amp; WKO Payments</b>	€ 3,151,719	€ 5,060,623	€ 6,339,388
<b>WKB Expenditure</b>	€ 3,103,100	€ 4,971,100	€ 5,879,500
<b>Average WKB Payment</b>	€ 292	€ 372	€ 434
<b>Abroad</b>	€ 3,141,500	€ 3,980,700	€ 3,171,300
<b>Average Age</b>	8.89	9.12	9.32
<b>Average Number of Children</b>	2.68	2.55	2.48

### **Number of Cases per Country**

The variables '*country of residence*' and '*nationality*' can be used to show how the cases are distributed over the different countries. It is evident from table 4.3 that the vast majority of the children from category 3 and 4 are living in Poland, Morocco, Netherlands, Belgium or Germany. The variable '*nationality*' is included in the table to improve our understanding of the nature of these cases. According to the table, the number of children living in Belgium, Germany and Morocco do not correspond to the number of children with these nationalities. The nationality and residence numbers match better for Poland and Other.

<sup>1</sup> The sample used here is the revised category 3 and 4 cases. These are the improved estimate of the number of cases in category three and four and this sample is therefore used for all category 3 and 4 specific analysis. The entitlements are the amounts each child has a right to receive considering age, family size and income, while the payments are the amounts that are actually paid out. Some of the difference between payments and entitlements is caused by claims, so the approximations for abroad are somewhat overstated.

<b>Table 4.3: Country of Residence and Nationality<sup>1</sup></b>		
	<b>Residence (% of Total)</b>	<b>Nationality (% of Total)</b>
<b>Belgium</b>	2,242 (6.0%)	188 (0.5%)
<b>Germany</b>	1,051 (2.8%)	488 (1.3%)
<b>Morocco</b>	8,009 (21.3%)	2,748 (7.3%)
<b>Netherlands</b>	8,646 (23.0%)	5,726 (15.2%)
<b>Other</b>	1,582 (4.2%)	1,752 (4.7%)
<b>Poland</b>	16,030 (42.7%)	13,996 (37.3%)
<b>Multiple</b>	-	385 (1.0%)
<b>NL/Multiple</b>	-	8,271 (22.0%)
<b>Unknown</b>	-	4,006 (11%)
<b>Total</b>	37,560 (100%)	37,560 (100%)

Crosstab 4.1 clarifies this situation. Children living in Belgium, Morocco and Germany often do not have their corresponding nationalities, while for Poland and the Netherlands most children do. The Belgium and German cases can be explained by considering that many have (Dutch) parents that live across the border, as most children have the Dutch nationality. Children living in Morocco often have both the Dutch and Moroccan nationality. This is a consequence of their parent's immigration to Netherlands in the 1960's-1970's and Morocco's refusal to let its citizen give up their Moroccan nationality. The Polish cases are a result of the large flow of Polish labour immigrants to the Netherlands from the last few years.

Despite the differences between the two, the 'Country' variable will be used for comparisons and analysis instead of the 'Nationality' variable. The 'Country' variable has less missing value and is more precise than 'Nationality'. Moreover, it indicates with which country there is concurrence of child arrangements, which is required for our analyses.

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<sup>1</sup>The revised numbers for category 3 and 4 are used to create this table. The numbers between the parentheses show the percentage of the total number of cases. 11% of the cases have an unknown nationality because the SVB does not require this information to process the cases. The variable 'Multiple' means that the child has more than one nationality, none of which are Dutch. The variable 'NL/Multiple' is for children with a Dutch and another nationality.

**Crosstab 4.1: Country of Residence and Nationality<sup>1</sup>**

		Nationality									
		Belgium	Germany	Morocco	Multiple	NL	NL/Multiple	Other	Poland	Unknown	Total
Country of Residence	Belgium	138	9	12	0	1,343	336	17	11	376	<b>2,242</b>
	Germany	4	162	0	8	504	40	7	114	212	<b>1,051</b>
	Morocco	0	0	2,202	20	264	4,893	82	6	542	<b>8,009</b>
	NL	41	61	520	28	3,306	2,881	547	1124	138	<b>8,646</b>
	Other	0	0	14	0	233	88	1,031	11	205	<b>1,582</b>
	Poland	5	256	0	329	76	33	68	12,730	2,533	<b>16,030</b>
	Total	<b>188</b>	<b>488</b>	<b>2,748</b>	<b>385</b>	<b>5,726</b>	<b>8,271</b>	<b>1,752</b>	<b>13,996</b>	<b>4,006</b>	<b>37,560</b>

The number of cases increased significantly from 2010 to 2011. More specifically, they went up with 2,743 cases in 2011, an increase of 26%, and stayed almost constant the year after that. It is interesting to see where these extra cases are coming from. Table 4.4 shows the number of cases per country of residence for the years 2010 to 2012. The final column indicates how much each country contributed to the surge in cases for 2011.

**Table 4.4: Number of Cases per Country<sup>2</sup>**

	2010	2011	2012	Share of Total Increase in 2011
Belgium	561	666	1,015	3.8%
Germany	226	275	550	1.8%
Morocco	2,388	2,701	2,920	11.4%
Netherlands	2,857	3,128	2,661	9.9%
Other	406	569	607	6.0%
Poland	4,199	6,041	5,790	67.1%
Total	10,637	13,380	13,543	100.0%

<sup>1</sup> The sample used here is the revised cases for category 3 and 4. For each country of residence, the occurrence of nationalities is shown. For a little more than 4,000 cases the nationality is not registered. These cases are categorized under Unknown. The final row and column are displaying the total.

<sup>2</sup> The revised category 3 and 4 cases are used to generate this table. The number of cases for each country is given for the years 2010, 2011 and 2012. Each country's share in the total increase of 2011 is shown in the final column. This is done for 2011 because the large inflow of cases make this year interesting.

Poland is mainly responsible for this rise by adding 1,842 cases in 2011, 67.1% of the total. In 2012 the overall number of cases stayed quite constant. The Polish and Dutch cases declined slightly, while both the German and Belgium cases experienced a sharp increase and almost doubled in size.

**WKB Payments and Expenditure per Country**

According to Table 4.2, from 2010 till 2012 the average WKB entitlement increased from €525 to €631, while the average WKB payment went up from €292 to €434. Table 3.1 showed that the legal determined WKB amounts increased in 2011. This is the prime reason why average benefits have increased, but there are other reasons as well. As mentioned before, the amount of WKB a household is entitled to, is calculated by the tax authorities. It depends on the legal determined amounts, the household’s income level, family size and the age of the children. Unfortunately, data on income levels are unavailable. However, table 4.2 showed that the number of children declines and their age increases. Both effects contribute to the increase in the average allowance per child. These effects will be discussed in more detail in section five.

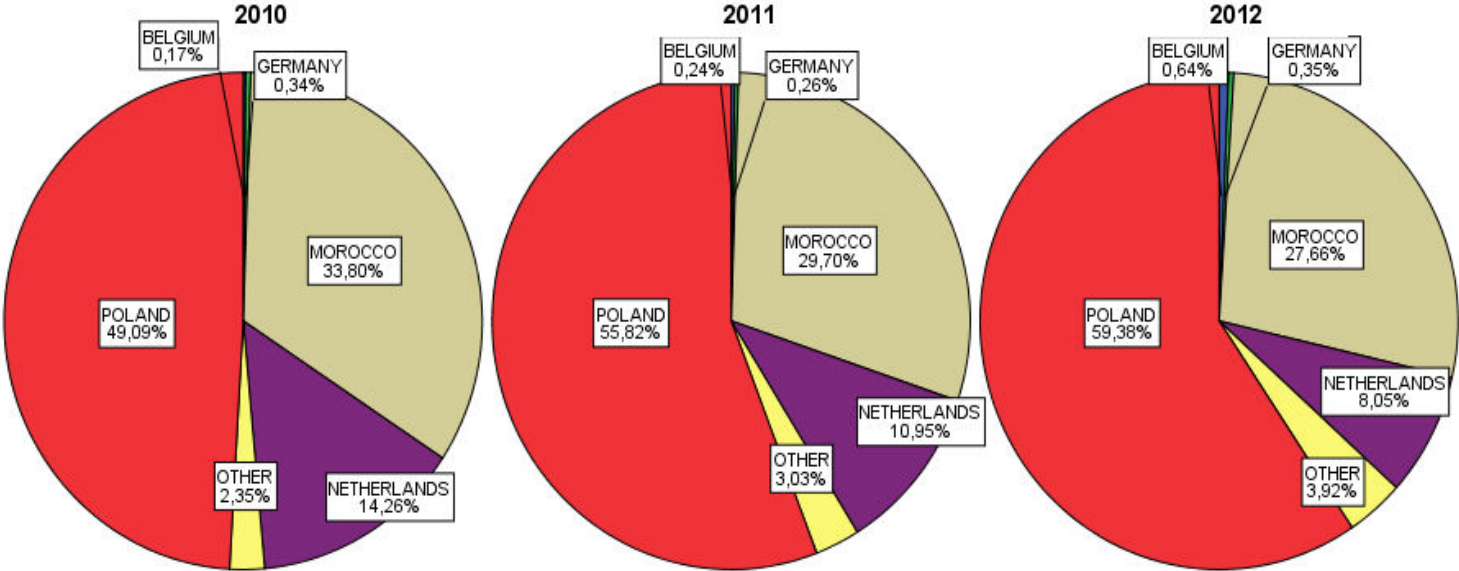
The number of cases per country gives an idea where most WKB beneficiaries live. However, the share of each country in WKB expenditure is different from its share in cases. This is because the benefit levels vary greatly for each country. Countries with low benefit levels will on average require larger supplement payments from the Netherlands than countries with higher benefit levels.

<b>Table 4.5: Average Payment per Case per Country<sup>1</sup></b>			
	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Belgium</b>	€ 9.26	€ 17.86	€ 37.01
<b>Germany</b>	€ 46.56	€ 47.76	€ 37.14
<b>Morocco</b>	€ 439.25	€ 546.69	€ 557.02
<b>Netherlands</b>	€ 154.90	€ 173.98	€ 177.93
<b>Other</b>	€ 179.26	€ 264.59	€ 379.38
<b>Poland</b>	€ 362.75	€ 459.32	€ 602.98

<sup>1</sup> The table shows the average payment of all the revised category 3 and 4 cases for each respective country, cases that receive nothing are included in the calculation of the average. The size of the WKB payment depends on the benefit level of each country. Countries with high child benefits relative to the Netherlands, such as Belgium and Germany, will often receive zero supplement payments. Conversely, countries with no or low child related benefits, such as Poland and Morocco, will receive on average much higher WKB supplements.

This is confirmed in table 4.5. The average supplement paid to children living in Belgium and Germany is much lower than to those living in Morocco and Poland. This causes the share in WKB expenditure for Poland and Morocco to be much higher than their respective shares in WKB cases. A graphical presentation of each country's share in WKB expenditure is seen below in graph 4.1.

**Graph 4.1: WKB Expenditure per Country per Year**



Because of the low supplement payments to Germany and Belgium, these countries together barely account for one percentage point of the total expenditure. The Polish and Moroccan's share is very substantial. Together they account for the vast majority of all expenditure, which increased from 83% in 2010, to 87% in 2012.

It is known how much each country receives as a share of total expenditure and how the increase in cases and payments are distributed. These statistics can be used to contribute the rise in expenditure from 2010 to 2012 to each country, as shown in table 4.6. Polish cases accounted for two-thirds of the increase in 2011 with 1.25 million additional costs. Morocco was the second biggest contributor with adding 23% of the rise in costs. These two countries caused the major share of the rise in costs for 2012 as well, with Poland contributing almost 80%.

<b>Table 4.6: Change in total Expenditure per Country<sup>1</sup></b>				
	<b>2011</b>		<b>2012</b>	
	<b>Amounts</b>	<b>Percentage</b>	<b>Amounts</b>	<b>Percentage</b>
<b>Belgium</b>	€ 6,700	0.4%	€ 25,670	2.8%
<b>Germany</b>	€ 2,611	0.1%	€ 7,293	0.8%
<b>Morocco</b>	€ 427,681	22.9%	€ 149,889	16.5%
<b>Netherlands</b>	€ 101,660	5.4%	€ - 70,738	-7.8%
<b>Other</b>	€ 77,772	4.2%	€ 79,732	8.8%
<b>Poland</b>	€ 1,251,565	67.0%	€ 716,502	78.9%
<b>Total Increase</b>	<b>€ 1,868,000</b>	<b>100.0%</b>	<b>€ 908,400</b>	<b>100.0%</b>

### Summary

It has become clear that the rise in WKB expenditure is mainly driven by two factors: the increase in the number of eligible children and the increase in the average benefit and payment levels. The increase in the payments and cases differs significantly for each country, with Poland being the major contributor to both.

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<sup>1</sup> The revised category 3 and 4 cases are used to generate this table. The first column shows the change in expenses for that year for each country. The second column presents the percentage of the total increase for that year for each country. The Netherlands had actually lower WKB expenditure in 2012 than in 2011 as expenses decreased by € 70,738.

## 5. Explanation and Diagnosis

The data has shown that two factors are responsible for the increase in WKB expenditure. The first issue is the rise in the average WKB payment, prompted by the increase in benefit levels. The degree by which supplement payments has increased, varies greatly for different countries. Secondly, the augmentation of the total number of cases, many of which are from Poland, is a subject of investigation.

### 5.1 WKB Benefits and Payments

The rise in the legal WKB benefit levels is the main reason for higher WKB payments. However, the previous section (see table 4.5) showed that the supplement size varies greatly between the countries. Both Poland and Morocco receive much more than Germany and Belgium. The most important reason for this divergence is the difference in countries' benefit levels. Considering benefit levels, the countries can be split into two groups. The first group consists out of West-European countries, with most cases from Belgium and Germany, which have extensive child-related benefit programs. The Netherlands has to pay little or no supplements to these countries. The second group has none or very low family benefits, with most cases from Poland and Morocco. The countries grouped in 'Other' can be added to this group as well since most of these cases are from (Eastern-European) countries with low benefit levels. For this second group, the Netherlands has to pay supplements that are close or equal to the Dutch benefit levels. Another explanation concerning the higher WKB payments to the second group is that they have lower income levels per head and are thus entitled to more WKB<sup>1</sup>. This can explain some of the difference in payment levels between the two groups, but unfortunately there is no available data on income.

The rise in the Dutch legal WKB amounts will mostly affect the countries in group two. The benefit levels of the countries in group one will in most cases still be higher than the Dutch ones. This means that the supplement payments to these groups will remain very low. At the same time, supplement payments to group two will increase because their benefit levels are lower than the Dutch ones in

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<sup>1</sup> We can argue that the Polish and Moroccan cases are often immigrants involved in low skilled jobs that pay relatively low wages. Germany, Belgium and the Netherlands, on the other hand, have much higher GDP per capita, and their citizens are on average higher educated. This suggests better paid jobs and lower WKB entitlements.

most cases. The Netherlands pays a supplement to equate the total benefit households receive to the Dutch level: when the Dutch level goes up, the supplements to group two has to increase with it. Thus we expect when the Dutch benefit levels go up, payments to category two countries will increase much more than those to category one. However, table 4.5 showed that the trajectory of average supplement payments is differs among the countries in the second group. Payments to Poland and Other are increasing faster than those to Morocco in 2012. Thus it seems that supplement levels are affected by other factors, which we try to identify here.

Both the age and the number of children have an effect on the average benefit level. Children older than 11 years receive additional benefits to compensate for education costs and smaller families receive more WKB benefits per child than bigger families do. Table 5.1 displays that the number of children is decreasing for all countries save Germany, while the average age is in an upward trend.

		<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Average</b>	Number of Kids	2.68	2.55	2.48
	Age	8.89	9.12	9.32
<b>Belgium</b>	Number of Kids	2.43	2.41	2.35
	Age	7.40	7.55	7.71
<b>Germany</b>	Number of Kids	2.15	2.13	2.24
	Age	6.92	7.10	7.71
<b>Morocco</b>	Number of Kids	3.51	3.39	3.25
	Age	8.72	8.79	8.79
<b>Netherlands</b>	Number of Kids	3.00	2.89	2.91
	Age	8.56	8.69	8.71
<b>Other</b>	Number of Kids	2.17	2.01	2.00
	Age	9.79	9.90	10.03
<b>Poland</b>	Number of Kids	2.12	2.08	2.00
	Age	9.44	9.68	10.23

<sup>1</sup> The sample here is the revised cases from category 3 and 4. It is striking that for all countries, although related, the number of children is high compared to the national fertility rate (Central Statistical Office (GUS), 2012). This is explained by the fact that households without children are not included in the dataset, while they are counted in the national average. Moreover, larger families have a higher WKB entitlement, which makes it easier to be below the income threshold and be eligible to receive WKB. Given the same income distribution, more larger families will show up in the data than small families.

Poland and Other both have smaller than average family sizes and relative older children. Morocco and the Netherlands are the countries that have significantly more children per family, while Belgium and Germany have on average younger children.

An additional explanation for the steep rise in payments to Poland and Other in 2012 is found when we consider that both have exactly two children per family on average. Families with two children are the only group to receive more WKB in 2012, as was shown table 3.3. Table 5.2 shows in percentages how prevalent family sizes are for the complete population and for Poland. It can be seen that Polish families are smaller than the average and that two children households are by far the most common. Families with two children became the majority in Poland in 2012, which explains the higher payments in that year.

Family Size	2010		2011		2012	
	Poland	Average	Poland	Average	Poland	Average
<b>1 Child</b>	24.0%	17.4%	25.6%	19.6%	28.5%	20.7%
<b>2 Children</b>	49.8%	38.8%	49.4%	40.4%	50.5%	41.2%
<b>3 Children</b>	19.6%	22.3%	18.6%	21.9%	16.2%	21.5%
<b>4 Children</b>	4.8%	11.3%	4.3%	9.8%	3.0%	8.9%
<b>5 and more Children</b>	1.8%	10.3%	2.0%	8.3%	1.8%	7.7%

Thus, we have identified two measurable factors, apart from the increase in the legal WKB amounts, which could have caused the average allowance amounts to increase: the change in the average family size and age. We would like to know how much these two factors account for the increase in entitlements. This can be approximated by comparing the percentage increase in the legal amounts with the percentage increase in the WKB entitlements.

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<sup>1</sup> The percentages in the table represent the share of (Polish) families with the corresponding number of children. All households living in Poland in the revised category 3 and 4 cases are used to calculate each family's size share. The average is computed by using the revised cases from category 3 and 4 of all countries, including the Polish ones.

First, the percentage increase in the legal amounts per child is calculated for 2011. Then we generate statistics on the composition of the family sizes of the population in 2010<sup>1</sup>. Subsequently, we calculate the expected average WKB entitlement per child for 2010. This is done by multiplying the share of the family sizes with their respective legal amounts per child. This yields an expected average entitlement of € 638 for 2010. The real average entitlement is lower, € 578, because in reality the income levels are taken into account, reducing the entitlements.

The expected average WKB entitlement for 2011 is then calculated, by using the 2011 legal amounts but the family composition of 2010. The resulting figure will give us the expected average entitlement for 2011, *for a population that has the exact same characteristics as the population in 2010*. According to our calculations, a population that has the exact same family size, age and income distribution as the one in 2010, would on average be entitled to € 739, an increase of 15.8%. This increase is solely caused by the higher WKB benefits. The real average entitlement in 2011 was € 674, an increase of 16.6%.

The increase in real entitlements in 2011 was caused, apart from the rise in the legal amounts, due to changes in the population. This means that if the legal benefit levels would have stayed constant in 2011, the average entitlement would have increased by approximately by .8% because of changes in the age, number of children and income levels of the population<sup>2</sup>. Hence, for 2011, the rise in entitlement amounts was caused for approximately 95% by the change in the legal amounts, and for roughly 5% due to smaller families and older children. The family and age effect is expected to be even lower in 2012<sup>3</sup>. This means that the most important determinant of the size of the entitlements is the legal WKB levels.

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<sup>1</sup> In 2010, 17% of the families had one child, 39% had two children and 21% had three children. One child families received the same amount in 2011 as in 2010: an increase of zero percent. Families with two children received €661 per child in 2010; in 2011 this was €733, an increase of 11%. This is done for each family size. Only the cases who were permanently in category three or four are used here because these entitlements are more accurate.

<sup>2</sup> We assume here that the income levels in 2011 had a similar distribution compared to those in 2010. This cannot be tested, but it seems a reasonable assumption considering there is just one year difference.

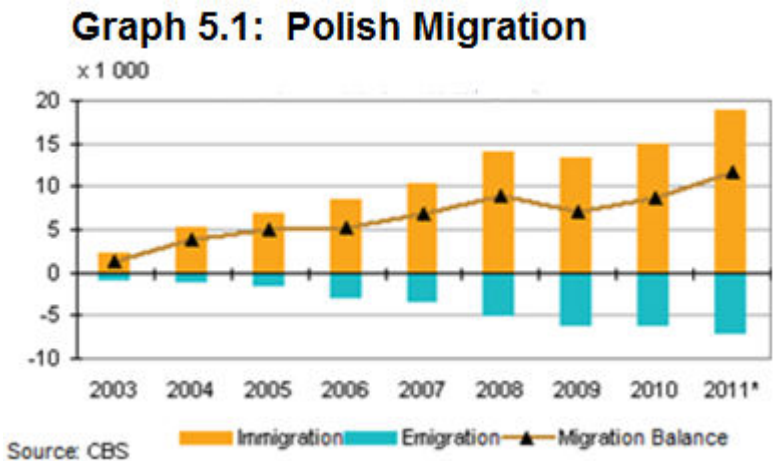
<sup>3</sup> In 2012 the assessment income level changes, reducing entitlement levels for higher incomes. This makes it more complicated to calculate the contribution of the age and family effect as changes in income levels have a bigger impact. However, both the average age and the average family size rise and decline at a slower pace in 2012 than in 2011. Hence, we can assume that the age and family size effect will be even smaller for 2012.

**Conclusion**

It is estimated that the overall rise in WKB payments contributed to around 57% of the total increase WKB expenditure in 2011. This was 92% in 2012. The vast majority of the change in WKB entitlements and thus the WKB payments was caused by the adjustments in the legal WKB amounts. This should be taken into account when trying to forecast future levels of WKB expenditure. The ageing of the population and the decline in family size contributed to the rise although its effect was minor.

**5.2 Number of WKB cases: Poland**

An important part of the increase in WKB expenditure is caused by the large inflow of cases. The majority of the children that were added in 2011 were from Poland. After Poland joined the EU in 2004, independent entrepreneurs obtained free access to the European labour market and in 2007 restrictions on Polish workers going to work in other European countries disappeared. This led to a large stream of Polish workers going abroad in search of better employment opportunities. Popular destinations were Germany, Ireland and the United Kingdom. Many Poles went to the Netherlands as well. The Dutch Bureau for Statistics, the CBS, estimates that as many as 100,000 Polish workers came between 2000 and 2012. The immigration rate spiked in 2008 but decreased again in 2009 due to the start of the financial crisis, see graph 5.1. Despite the continuing economic problems, immigration peaked again in 2011 when 19,000 Poles came to the Netherlands.



This peak in Polish immigration in 2011 can explain the large increase in Polish children eligible for WKB in 2011. However, this trend changed in 2012 when the number of Polish cases decreased, while the border cases increased significantly. These developments can be explained by the economic situation. The Netherlands entered a severe recession in the end of 2011, which could stimulate Polish workers to return to their home country, also because of the improved prospects there. At the same time, the economic situation in Belgium and especially Germany looked much less grim. This could also motivate Dutch workers to look for a job across the border.

To check whether this theory is supported by the data, the numbers of category 1 and 2 can be compared to see whether these developments are not only specific for category 3. Table 5.3 shows that the rise of cases for the neighbouring countries occurred mostly for category 3, while the overall number of Polish cases stayed almost constant in 2012. This offers some support to the theory that the economic situation has influenced the numbers.

**Table 5.3: Category 3 Cases per Country (% of Country Total)<sup>1</sup>**

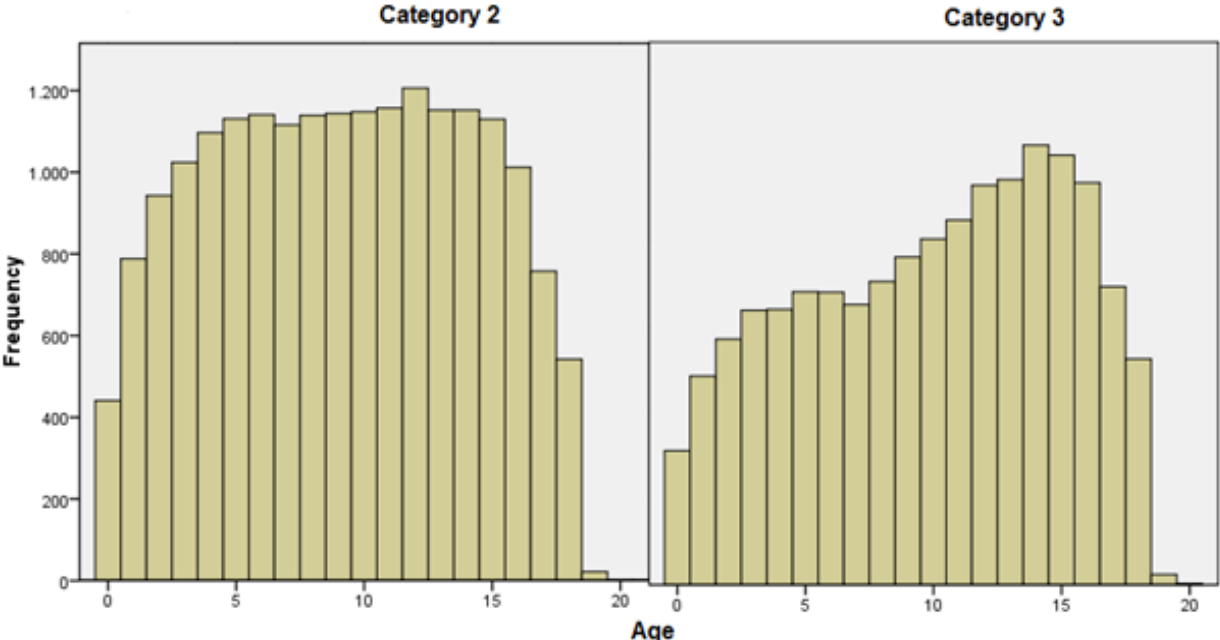
	<b>2010</b>	<b>2011</b>	<b>2012</b>
	<b>Category 3 Cases (% Total)</b>	<b>Category 3 Cases (% Total)</b>	<b>Category 3 Cases (% Total)</b>
<b>Belgium</b>	561 (20.7%)	666 (21.7%)	1,015 (28.2%)
<b>Germany</b>	226 (6.4%)	275 (7.0%)	550 (12.6%)
<b>Netherlands</b>	2,857 (13.4%)	3,128 (14.4%)	2,661 (12.8%)
<b>Other</b>	406 (12.3%)	569 (14.7%)	607 (15.4%)
<b>Poland</b>	4,199 (44.4%)	6,041 (46.1%)	5,790 (43.2%)

The difference between category 2 and 3 could have other reasons as well, considering the different nature of the categories. For a Polish family, an important factor that determines their category would be the working situation of the spouse. A household in Poland with one parent working in the Netherlands will be category 2, when the other parent works in Poland the category shifts to 3. This means that if fewer Polish mothers or fathers work in Poland, the share of Polish in category 3 would diminish, which happens to some extent in 2012.

<sup>1</sup> Table 5.3 shows the number of cases in category 3 for each country. In parentheses is the percentage of cases of that country that are in category 3. Thus 20.7% of all Belgium cases were in category 3 in 2010. The whole dataset is used, with the revised category allocation. Category 4 is left out as it constitutes almost only of Moroccan cases. The fluctuation in percentages show whether category 3 cases are becoming more or less prevalent relative to the other categories.

To check whether this reasoning is correct, the age-distribution of category 2 and 3 cases is shown for Poland in graph 5.2<sup>1</sup>.

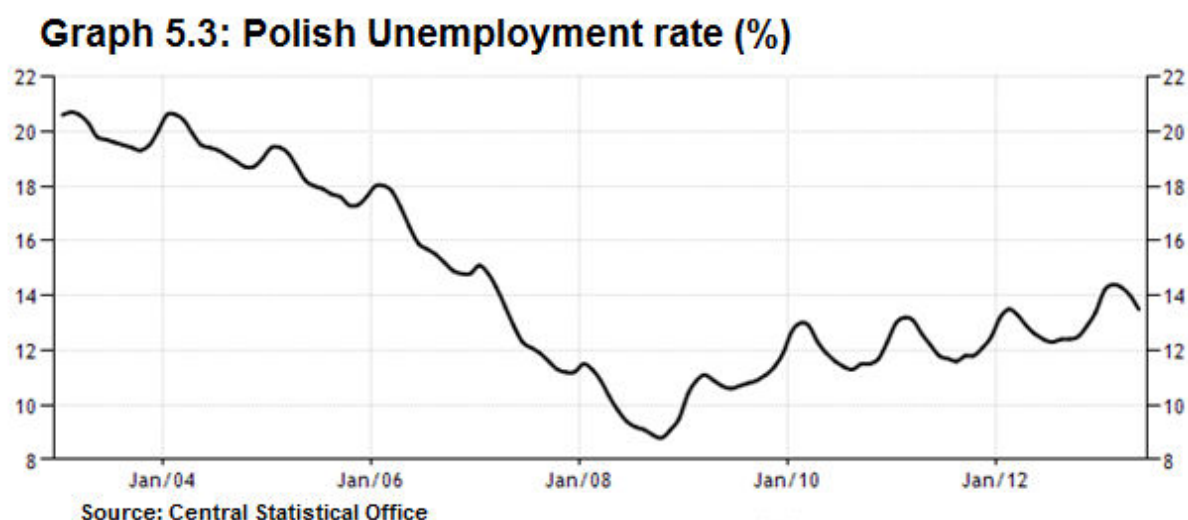
**Graph 5.2: Age Distribution of Category 2 and 3**



Children of young age, especially younger than ten years, are severely under-represented in category 3, while category 2 is more evenly distributed. This supports the theory that both parents will be working for category 3 Polish cases, as it shows that this happens far more often for older children. Couples prefer to have one parent staying at home when their children are of very young age. Thus the reduction of Polish cases in 2012 for category 3 could partially be caused by fewer parents working in Poland. In 2008, 49.7% of the Polish households had two full-time working parents (OECD Family Database, 2010). More recent data is not available, but it is likely that there was a reduction in employment as a consequence of the economic situation in Poland. Graph 5.3 shows that the Polish labour market improved rapidly after it joined the EU in 2004.

<sup>1</sup> The revised cases for category 2 and 3 for Poland are used here to generate this graph.

However, since 2008 the financial crisis started to have its effect and the unemployment rate went up. This could have reduced the second parent employment in Poland and thus the number of category 3 cases<sup>1</sup>.



## Conclusion

The increase in WKB cases in 2011 is driven for a large part by the immigration of Polish workers to the Netherlands. This happened as a consequence of Poland joining the EU. The reduction of Polish cases in 2012 can be explained by the worsening economic conditions in the Netherlands and the reduction of second parent employment. It is estimated that the overall rise of cases in category 3 and 4 contributed to approximately 43% to the total increase in WKB expenditure in 2011. The number of cases barely increased in 2012, causing only 8% of the extra expenses in 2012.

The overall growth in WKB expenditure is driven by two factors: the increase in the WKB amounts and the rise in the number of children eligible to receive WKB. The first cause is explained by the change in the legal amounts, the average age and family size. The second reason can be attributed to immigration and a possible decline of families with two working parents. The factors that determine WKB expenditure are thus identified.

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<sup>1</sup> A change in the employment situation of the second parent could also have an effect on the border cases. A Dutch family with a parent working in Belgium or Germany will move from the second category to the third when the second parent stops working in the Netherlands. It works the other way around for Belgium and German families; if the second parent stops working in its home country the family will switch from three to two. We can therefore assume that the second parent employment status is of minor importance because the two effects compensate each other. It does matter for Poland, as it accounts for the majority of the expenditure and its effect works in one way.

Behind these effects there lies a deeper cause for the rise in WKB expenditure. It has become clear that the Polish cases are a major part of the explanation. The average amount paid to them is substantial compared to the other countries and it has risen faster as well. In addition, the total number of Polish cases went up, from 4,199 in 2010 to 6,041 in 2011. Total expenditure on these cases amounted to € 2.77 million in 2011, which accounted for 56% of all WKB expenditure, up from € 1.52 million and 49% in 2010. Poland is responsible for 2/3 of the rise in WKB expenditure in 2011 and almost 80% in 2012. The Polish EU admission can therefore be seen as the root cause of the increased expenses.

## 6. Forecasts

In order to make predictions about future WKB expenditure, we have to consider the factors that have been found in to influence it. It was shown that countries with low children related benefits and with lower income per head and have the most effect on WKB expenditure. The Polish scenario exemplifies this. Therefore we have to look at countries that will, or already have, entered the EU and will gain free access to the Dutch labour market. This will happen for Bulgaria and Romania in 2014. Another important factor are the prospective changes in the WKB benefit program because it was found that changes in the benefit levels have an important impact on WKB expenditure<sup>1</sup>.

### 6.1 Planned WKB Modifications

Table 6.1 shows the legal WKB amounts per child per year for 2013. The 2012 levels are shown as well for comparison (Belastingdienst/Toeslagen, 2013). It can be seen that the amounts have increased again for larger families. This implies that the average WKB entitlement and payment will increase further in 2013.

<b>Table: 6.1: WKB Levels 2013</b>		
	<b>2012</b>	<b>2013</b>
<b>1 child</b>	€ 1,017	€ 1,017
<b>2 children</b>	€ 739	€ 777
<b>3 children</b>	€ 554	€ 579
<b>4 children</b>	€ 442	€ 461
<b>Additional sum &gt;4</b>	€ 106	€ 106
<b>Asset Test</b>	-	€ 80,000

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<sup>1</sup> Other factors that influence the WKB levels and the size of the supplements are the average family size and the age of the children. Family size is likely to decrease further as the fertility rates in Europe continue to decline. This means average age is likely to increase as well. However, both have only a small effect on the WKB supplements, estimated to be around 5% for 2011 in the previous section. Therefore, these factors are not taking into account in the forecasts as we assume the population characteristics to remain similar to those in 2012.

Other changes in 2013 are the introduction of an asset test. Parents from countries from which immigrants come to work here will most likely not have so many assets, so the effect on expenditure will be minor<sup>1</sup>. Moreover, in 2013, the “Country of Residence Principle” (‘Woonlandbeginsel’) started to apply for the WKB arrangement. This principle states that benefits which are exported to other countries need to be adjusted to the local costs of living<sup>2</sup>. This applies to all the category 4 cases in our dataset. All WKB benefits paid to Morocco are reduced to 60% of the normal benefit in 2013.

Scheduled modifications for 2014 involve an extra annual supplement of € 2,800 for single parents. Furthermore, there will be the reduction in the income assessment level. Finally, the government plans to stop the exportation of benefits to countries outside the EU all together. This means that at the start of 2014 all payments to category 4 cases will be stopped. 2015 foresees additional increase in the benefit amounts (€ 25 for 1 child and € 517 for two children). In addition, an increase for children in the age group of 12-17 years will take place to compensate for school book expenses. It is important to note that the plans for 2015 are subject to political change and not yet certain<sup>3</sup>.

## 6.2 Immigration

The Dutch bureau of Statistics, the CBS, makes predictions on the future trend of European immigration to the Netherlands. Immigration was projected to decline after 2008 due to the crisis. This happened to some extent in 2009 but then increased again in 2010 to an all-time high. This is thought to be caused by an increasing demand for foreign employees in the Netherlands, a consequence of the ageing Dutch population. The CBS anticipates that the ageing process will continue to be a factor for the next 30 years, causing the demand for immigrant for workers to remain substantial. However, immigration from European countries is expected to decline in future years because of aging as well. Other European countries, notably Germany, will experience aging to an even stronger extent than the Netherlands. This could lure immigrants towards these countries

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<sup>1</sup> If both parents combined have more than €80,000 in assets, they are no longer eligible to receive WKB. Dutch, Belgium and German residents are more likely to be higher educated than their Eastern European and Moroccan counterparts. Thus they are more likely to receive higher wages and hence to fail the asset test. Therefore, the implementation of the asset test will reduce the number of cases somewhat, but mostly for households from the Netherlands, Germany and Belgium that are receiving only small supplements.

<sup>2</sup> The rationale behind this is that the benefit levels are meant to compensate costs based on the Dutch price level. Countries outside Europe often have lower price levels, the benefits should therefore be adjusted accordingly. This principle only applies for countries that are not part of the EU/EER or Switzerland. In effect: all WKB benefits paid to countries with lower price levels from outside the EU will be lowered by a certain factor.

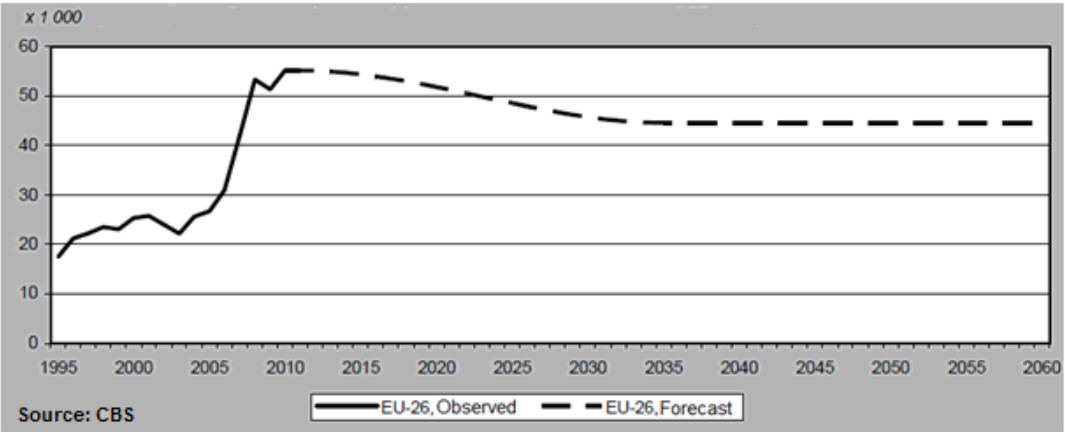
<sup>3</sup> Political decisions made by other countries can influence WKB payments as well. Supplements could increase when either Germany or Belgium decide to lower their child-related benefits. Supplements could decrease when Poland adopts higher benefit levels. However, both are considered unlikely to happen soon in a significant way.

and away from the Netherlands. Moreover, East-European countries are rapidly aging as well, reducing the number of available workers to go abroad. This means that supply of immigrant workers from the EU is expected to decline (CBS, 2011).

The level of Polish immigrants is expected to stay constant or to decrease. The Polish labour market has improved since the country joined the EU; it's economy expanded by 26% in the period 2004 - 2009 (EUROSTAT, 2011). Although the Polish labour market has deteriorated in recent years, scarcity on the job market will probably return after the crisis due to the rapidly aging of the Polish population (Chakraborty, Sarbani, 2010) Furthermore, the Dutch economic outlook makes it unlikely that many new Polish workers will arrive. These two developments make it less attractive to work in the Netherlands and will encourage Polish workers in the Netherlands to return home. A reduction in Polish category 3 cases could also be caused by fewer parents working in their home country. Overall, we expect the number of Polish cases to stay constant or decline slowly with respect to its 2012 level.

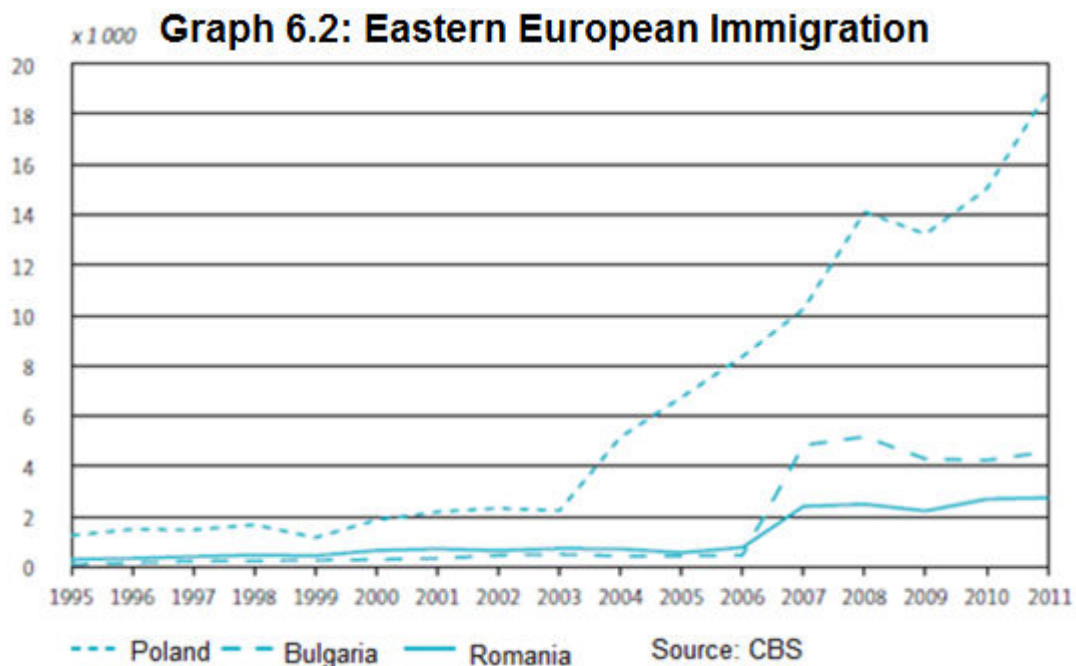
Croatia joined the EU in 2013 but the Dutch restrictions on its labour force will only be lifted in 2015. However, Croatia has a relative small population and therefore will be unlikely to have much of an effect on expenditure. Additionally, immigration from Southern European countries has increased in recent years and is expected to remain high as unemployment stays at record levels in these countries. These cases, however, are not expected to have a large impact on WKB expenditure as its numbers are still limited and these countries' family allowances are not trivial. The CBS predicts the future flow of immigrants from European countries to be around the same level as in 2011 but then to slowly decrease until 45,000 annually. This forecast can be seen in graph 6.1.

**Graph 6.1: Immigration from the EU-26, observed and Forecast 2010-2060**



## Bulgaria and Romania

Bulgaria and Romania are noteworthy cases because they will gain free entrance to the Dutch labour market in the coming year. They have already joined the EU in 2007, but faced labour market restrictions for seven years after that. These restrictions are to be lifted in 2014, which could lead to an influx of immigrant workers from these countries. Graph 6.2 shows that the number of Polish increased significantly when their restrictions were lifted in May 2007, while Bulgarian and Romanian immigration remained small.



There are a number of reasons for assuming that the inflow from these countries in 2014 will be limited and less than the Polish flow. Bulgaria and Romania are smaller than Poland; together their population amounts to 2/3 of the Polish population. Moreover, due to the current economic situation in the Netherlands, the demand for cheap labour is expected to remain low. In addition, Bulgarians and Romanians are more likely to go to Southern European countries with whom they share more cultural and language affinity. Finally, the demand for low skilled workers is much lower now than it was in 2007 when the Polish workers came to the Netherlands.<sup>1</sup> The newcomers are likely in some cases to replace the Polish, for whom the increased competition might stimulate a return to Poland. This effect will somewhat reduce the increase in WKB cases. Moreover, the planned abolition of labour restrictions in 2014 is small compared to the past. For example, when the southern European countries such as Spain, Portugal and Greece gained free access to the Dutch labour market in the

<sup>1</sup> In 2007 there was still a demand for low skilled labour. When Bulgarians and Romanians come, they have to compete with the Polish workers for jobs, making it harder to find one.

1980's, the effect on labour flows was small (CBS, 2010). Although we suspect the increase in WKB cases to be smaller than when Polish workers obtained free access, the number of extra cases could still be significant. The CBS predicts that a maximum of 20,000 Romanians and Bulgarians will come per year. While a fraction of that will end up in category 3 and 4, these are cases for which the supplement payments will be large, contributing considerably to the WKB expenditure.

In conclusion, we project the number of Polish cases to stay constant or slowly decline while in 2014 an influx of Bulgarians and Romanians is expected, although limited. The number of border cases will probably increase, but these cases have little influence on WKB expenditure. In the long run, the number of immigrants is expected to remain more or less at a constant level, as predicted by the CBS.

### **6.3 WKB Expenditure Predictions**

#### **2013**

In 2013, the number of overall cases is expected to stop its increase and to stay relatively constant. The WKB amounts are increasing slightly in 2013, but the implementation of the country of residence principle will lower the average WKB payment. We can calculate the expected level of expenditure for 2013, as we expect the number of cases to remain similar<sup>1</sup>.

The higher WKB levels in from table 6.1 correspond to an almost 4% increase in the average WKB entitlement in 2013 compared to 2012. WKB expenditure was estimated to be € 5.9 million in 2012, a four percent increase in benefit levels will correspond to a € .24 million rise in expenses. On the other hand, Morocco accounted for € 1.63 million of expenditure in 2012. After the implementation of the country of residence principle this will be reduced to € .98 million. Thus, we expect an increase of € .24 million due to the benefit levels and a reduction of € .65 million because of the country of residence level. In total, WKB expenditure is expected to decline with around € .4 million to approximately € 5.5 million in 2013.

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<sup>1</sup> We assume that the composition of the WKB beneficiaries with respect to age, number of children, income and nationality in 2013 will be similar to 2012. Moreover, we assume that the increase in entitlements leads to a proportional increase in expenditure.

## 2014

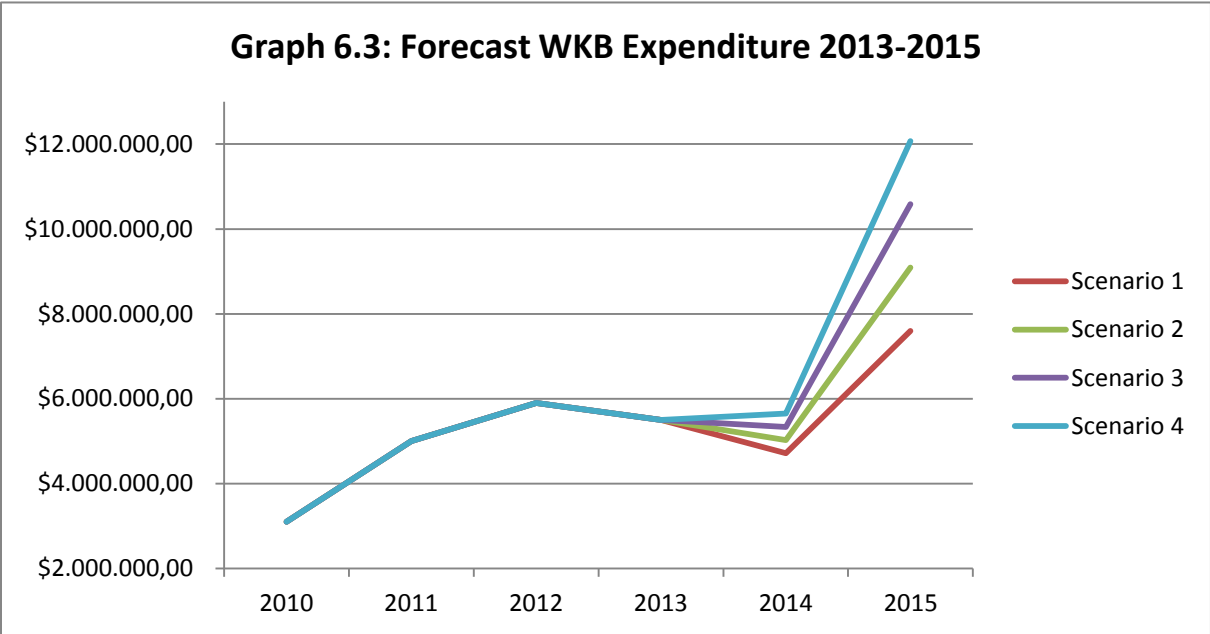
The decline in WKB expenses is expected to continue in 2014 despite the inflow of Bulgarians and Romanians. In 2014, the exportation of the WKB to countries outside the EU/EER and Switzerland is stopped. There were almost 3,000 category 4 cases in 2012, with an estimated one million WKB related expenses in 2013. So WKB expenditure is reduced by one million when payments to category 4 cases are stopped. Other changes in 2014 are the inclusion of a supplement of € 2,800 for widows and widowers with children. This will slightly increase the average benefit levels, although there are probably very few cases that are eligible for this arrangement. The concurrence of family benefit is unlikely to happen with just one parent. Finally, a reduction in the income assessment level is planned, reducing the number of cases eligible for WKB to some extent. These last two changes have small effects that work in opposite directions, possibly cancelling each other out.

To predict the additional costs from extra cases in 2014, we have to estimate how many Bulgarians and Romanians are coming. The CBS predicted that a maximum of 20,000 a year would come to the Netherlands. We can use this figure to calculate what the maximum rise in WKB expenditure could be. An immigration flow of 20,000 roughly corresponds to the number of Polish workers that entered the Netherlands in 2011. In that year 1,842 Polish WKB cases were added. Assuming that the link between immigration levels and WKB cases is similar for Bulgaria and Romania, it gives us a maximum estimate of almost 2,000 extra WKB cases in 2014. The payment levels are expected to be similar to those to Poland. Polish cases received on average €600 in 2012, after the 4% increase in benefit levels in 2013, this will be € 624. This amount multiplied by the maximum 2,000 extra cases gives a € 1.1 million rise in WKB expenses. However, the halting of WKB payments to countries outside the EU will lower the costs with an estimated million. Hence, only if the number of immigrants coming from Bulgaria and Romania in 2014 will equal the highest estimation, there could be a small increase in expenses. Nevertheless, these new cases will probably arrive throughout the year, causing expenditure in the first quarters to be lower. Therefore, the WKB expenditure is almost certain to decrease slightly in 2014 due to the termination of payments to category 4 cases.

**2015**

After 2014, the decline in WKB expenditure is expected to end due to the continuing stream of East-European immigrants and a rise in the benefit levels. Workers from Croatia can be added to this flow, as they gain free entrance to the Dutch labour market in 2015. The size of this labour movement is uncertain and depends among others on the economic developments. In addition, the WKB benefit levels are scheduled to increase in 2015: € 25 for the first child and € 517 for the second, along with a supplement for children between 12 and 17 years to compensate for education costs. This will significantly augment WKB expenditure as the increase is substantial. Belgium and Germany will still have higher benefit levels for most cases, but the supplements to the Eastern-European countries will probably rise proportionally to the increase.

As the number of immigrants from Eastern Europe is highly uncertain for 2014 and for 2015, we will make forecasts for four different scenarios. In the first scenario we assume an augmentation of 500 Eastern European cases per year, 1,000 in scenario two up to 2,000 in scenario four. Below, Graph 6.3 shows the WKB expenditure for 2010-2012 and the estimations for the scenarios for the years 2013, 2014 and 2015.<sup>1</sup>



<sup>1</sup> We assume a similar age and family size distribution to the 2012 population. Moreover, we assume that all Eastern European cases will be similar to the Polish, which means that around 70% of the families are entitled to €542 extra WKB in 2015 compared to 2014.

Expenditure decreases slightly in 2013 due to the implementation of the country of residence principle. For most scenarios this decline continues in 2014 when all payments to outside the EU will be halted, although most of the cost reduction is compensated by the rise in Bulgarian and Romanian cases. If the planned higher WKB benefit levels for 2015 will be implemented, that year will experience a sharp increase in expenditure. Depending on the number of East European cases, WKB related expenses are forecast to be between seven and thirteen million in 2015.

### **Long Run**

In the long run, WKB expenditure depends on the political changes and the economic situation. New EU member states will allow more workers to search for a job in different countries, although no new country is expected to gain free entrance to the Dutch labour market in the near future and the number of EU immigrants is expected to remain constant after a small decline.

Changes in the WKB benefit program and the benefit levels will have a significant impact on expenditure. This is also true for the modifications made by foreign countries to their child benefit programs. The development of the economy is another important long run determinant of WKB expenditure. If the economic situation in the Netherlands improves, the demand for low skilled labour will increase, which would prompt additional Eastern Europeans to come work here. Nevertheless, a continued recession will lower the demand for immigrants and thus WKB expenditure. The economic circumstances of the rest of Europe matter too. Higher growth in Eastern-Europe will reduce the incentive to go abroad.

## Conclusion

WKB related expenditure was found to have increased rapidly from 2010 to 2011 because of the rise of a combination of the WKB benefit levels and the number of WKB cases. Both developments were a consequence of the sharp rise in Polish immigrants that came to the Netherlands to work. The government decision to raise the benefit levels increased the supplement payments to countries with insignificant family allowances such as Poland. Poland was responsible for two thirds of the increase in 2011 and made up almost 60% of total WKB expenditure in 2012.

It was found that Belgium and German cases had a small share in overall expenditure due to their higher benefit levels. This means that when predicting future expenditure, countries with low benefit levels will have the most impact. Expenditure is expected to decrease in 2013 and 2014 due to the cancellation of benefit exportation to countries outside the EU. Bulgaria and Romania will gain free entry to the Dutch labour market in 2014. This will ultimately cause expenditure to increase again along with a planned increase in the WKB benefit levels in 2015. The size of the increase in 2015 depends mostly on the number of East- European cases and could vary between two and five million. However, the planned changes to the WKB benefit program have not been implemented yet and could be cancelled or altered which would reduce the usefulness of these estimates. In the long run WKB expenditure is determined by the economic circumstances, new EU members and changes in the WKB benefit program.

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[www.rijksoverheid.nl](http://www.rijksoverheid.nl)

[www.overheid.nl](http://www.overheid.nl)

[www.belastingdienst.nl](http://www.belastingdienst.nl)

All the data used in this thesis was provided by the SVB and obtained from the SVB Database.

# Glossary

**AKW:** *Algemene KinderWet*, (General Children's Law) child related benefit program paid to households with children younger than 18 years, irrespective of income

**Allowance/Benefit:** *Uitkering*, the money that is paid out related to benefit programs

**(Legal) Benefit Levels:** The size of the allowances, determined by law

**Category:** *Behandelsoort*, the treatment types used by the SVB to separate and process the WKB cases.

**Child related Benefit Programs:** by national law created obligations to pay benefits to households with children.

**Entitlements (amounts):** *Rechtenbedragen*, the level of benefit a child has the right to receive considering its specific circumstances. Not necessarily equal to the paid benefit.

**Priority/Anti-Accumulation Rules:** *Anticumulatie/Voorrang Regels*: EU rules that determine how the benefit payments are distributed between member states in the case of overlapping benefits.

**Supplements:** *Aanvullingen*, the amounts the SVB has to pay to complement foreign benefits to the Dutch level. They occur only for WKB cases in category 3 and 4.

**SVB:** *Sociale Verzekeringsbank* (Social Insurance Bank), the Dutch institution responsible for implementing child related benefit programs and first pillar pension benefits. In charge of paying the supplement for WKB cases in category 3 and 4.

**WKB (KGB):** *Wet Kindgebonden Budget* (Law Child Related Budget) child related benefit program paid to households with children younger than 18 years and income under a certain level.

**Tax Authority:** *Belastingdienst*, Dutch institution that is responsible for collecting taxes and implementing benefit programs, in charge of paying the category 1 and 2 WKB cases.