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# Germany -Shadow Economy I: Basics and Context

Draft paper - compiled and ordered notes, prepared for future use

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## 1 Introduction

### 1.1 Shadow Economy vs. Informal Economy

In I/IV/6 we described already that there is an interlinkage between tax evasion, the shadow economy and generally IFFs. Some authors emphasize this interlinkage, others distinguish more carefully. The conceptual discussion has a considerable impact also on the (mix of) methods used for “guesstimates” and the size of area we are talking about. Those distinction need to be observed within the participating countries of this research cooperation, and between those countries. Most importantly, the situation is much more complex in developed countries than it is in developing countries, and the concept of “Shadow Economy” in developed countries has different implications and opportunities for overall employment as the “Informal Economy” in developing countries.

Given these differences, this chapter on Basics & Context is used both for introducing differences between developing and developed countries and for explaining the country specifics for Germany.

### 1.2 Complex situation in Germany

Germany being a developed country needs specific attention since its conceptual framework is as developed as the options and differences of employment within the Shadow Economy. Some examples:

- The *Handelsblatt* newspaper quoted 2011 studies by OECD and UN, that the turnover volume of the German shadow economy amounts to the incredible amount of EUR 500 billion annually. At closer look, however, the paper includes money laundering in

its report, which, in this study, shall be treated separately.<sup>1</sup> Equally impressive is the calculation by Richard Murphy according to whom every year EUR 1 trillion are lost through tax avoidance and evasion within the EU.<sup>2</sup>

- In contrast to that, the Federal Ministry of Finance offers a statistic of investigations, prosecution and sentencing in the field of *Schwarzarbeit* and illegal employment. According to those cases dealt with by the authorities, the damage done to the community lay in 2012 around EUR 751.9 million.<sup>3</sup> This assessment is, however, confined to those cases uncovered by the Federal Customs and does not include cases uncovered by other federal or police agencies.
- In between these extremes, a joint investigation of the Johannes Kepler University and the *Institut für angewandte Wirtschaftswissenschaft* calculates, that the damage done in 2013 lies around EUR 340.3 billion, down EUR 2.7 billion compared to 2012 and sinking.<sup>4</sup>

Here, therefore, a close examination of concepts and methodology is required whenever a number is circulated. Since our project tries to look at the overall damage of the avoidance of taxes and mandatory SSCs, we pay attention to the entire complex while always trying to keep a close look on the differences. In this chapter, the segment of shadow economy will be the focus, not criminal IFFs and “classical tax evasion”.

The reason, why informal economy is treated in a separate chapter is, that the combined burden of tax and mandatory SSCs is often linked with questions of the informal/shadow economy. For example, that this form of employment is widespread in order to avoid this burden, alongside with other “impediments” such as minimum wage, minimum legal standards regarding working hours and holidays, employee safety regulations etc.

For aspects arising in the context of the shadow economy there is also a different institutional responsibility in charge for these questions, namely the Finanzkontrolle Schwarzarbeit located at the Federal Customs Authority.

## 2 Academic debate

### 2.1 Friedrich Schneider

Friedrich Schneider, perhaps the most-quoted academic on these topics argues, that economies in general have to be categorized into the following three segments (Schneider, 2014a, p. 4ff.):

- The first segment comprises those goods and services of the formal economy which are captured in the National Income and Expenditure Statistics and/or GDP calculations.

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<sup>1</sup> Scheidges, R. (2011, November 8) Deutschland – ein Paradies für Geldwäscher. Handelsblatt. Retrieved from [www.handelsblatt.com/5807782.html](http://www.handelsblatt.com/5807782.html)

<sup>2</sup> Algirdas Semeta, Press Release 6 December 2012 [http://ec.europa.eu/commission\\_2010-2014/semeta/headlines/news/2012/12/20121206\\_en.htm](http://ec.europa.eu/commission_2010-2014/semeta/headlines/news/2012/12/20121206_en.htm). Brinkmann, B. (2014, March 10) 13 Milliarden am deutschen Fiskus vorbeigeschleust. In: Süddeutsche Zeitung. Retrieved from <http://sz.de/1.1908150>

<sup>3</sup> Der Zoll (retrieved 2013, October 2) Schwarzarbeit in Zahlen [http://www.zoll.de/DE/Presse/Zahlen-Daten-Fakten/zahlen\\_daten\\_fakten\\_faq.html;jsessionid=2D945F85B21861DB2E147767A75130A7?nn=106162](http://www.zoll.de/DE/Presse/Zahlen-Daten-Fakten/zahlen_daten_fakten_faq.html;jsessionid=2D945F85B21861DB2E147767A75130A7?nn=106162)

<sup>4</sup> Pressemitteilung 6 February 2013 "Prognose zur Entwicklung der Schattenwirtschaft in Deutschland im Jahr 2013". Retrieved from [http://www.econ.jku.at/members/Schneider/files/publications/2013/PE\\_Schwarzarbeit\\_Januar2013%20final.pdf](http://www.econ.jku.at/members/Schneider/files/publications/2013/PE_Schwarzarbeit_Januar2013%20final.pdf)

- The second segment comprises all those goods and services which are not captured in official statistics, because they are produced/performed in the informal/shadow economy. A specific emphasis Schneider puts on “Black Labour” (Schwarzarbeit), where he distinguishes again between those goods and services produced/performed by nationals and legally in Germany residing non-Germans, and those by “illegal immigrants”. The German term “Schattenwirtschaft” parallels the English concept “shadow economy, informal economy, underground economy, unobserved economy or undeclared/underdeclared work.
- A third segment comprises those products/services which are done without pay on a honorary or voluntary basis or because they are traditionally exempt from pay, e.g. Do-it-yourself jobs when maintaining the house, help among neighbours, raising children etc. Here, of course, is some overlapping to segment Nr. 2 if it is done excessively.

Schneiders view would cover that which we explained above as the area of overlapping between issues arising in the Informal/Shadow Economy and the core issues of the Tax Justice & Poverty research (Schneider, 2014a, p. 8):

Die Schattenwirtschaft umfasst die legale Produktion von Gütern und Dienstleistungen, die absichtlich vor den staatlichen Behörden verheimlicht werden.

Drei Gründe:

- (i) um amtliche Steuern (indirekte und direkte) zu vermeiden,
- (ii) um sämtliche Sozialabgaben nicht zu entrichten, und
- (iii) um bestimmte Mindeststandards im Arbeitsmarkt zu umgehen (z.B. Mindestlöhne, Länge der Arbeitszeit, Sicherheits- und Arbeitsschutzbestimmungen, etc.).

## 2.2 Dominik Enste

Dominik Enste tries to elaborate more clearly that which Schneider summarized in his second category, namely the border between the legal and illegal. Here he uses the distinction between the household/neighbourhood sector and the informal sector, distinguishing that from the irregular and criminal sector of economic activities:

Table 1 Sub-categories of the Shadow Economy according to Enste<sup>5</sup>

	Shadow Economy in the wider sense			
	“Self-Supply” Economy		Shadow Economy in the more narrow sense	
Economic Sector	Domestic Sector	Informal Sector	Irregular/ Illicit Sector	Criminal Sector
Activity	legal	legal	legal	illegal (crime)
Execution	legal	legal	illegal	illegal
Example	Neighbourhood-Assistance, Subsistence & household activities	informal economy	Black Labour	Black Market

<sup>5</sup> Published on <https://de.wikipedia.org/wiki/Schattenwirtschaft>, citing Dominik Enste: *Schattenwirtschaft und institutioneller Wandel*. Mohr Siebeck, Tübingen, 2002, S. 11.

This categorization is justified by pointing out the many areas of economic activities which are not (fully) regulated and contain some room for maneuvering between that which is no longer totally in accordance with the formal economy, but, at the same time, not irregular, but rather, exploiting the non-regulated areas – similar to overstretching legal norms for aggressive tax avoidance.

It is also here, where the many shades of “self-employment” “subsistence work” or “non-paid work” enter the picture. The strength of Enstes approach is to illustrate more clearly how many “shades” of irregularity exist within the segment commonly referred to when talking about the Shadow Economy.

### 2.3 Portes/Castells et al.

A third distinction is much older and was developed by Portes/Castells/Benton and Laurel in 1989 already. They distinguish

**Table 2 Sub-categories of the Shadow Economy according to Portes/Castells et.al<sup>6</sup>**

Sector	Market transaction	Products	Production/distribution
Households	No	Legal	Legal
Formal economy	Yes	Legal	Legal
Informal economy	Yes	Legal	Legal/illegal
Criminal economy	Yes	Illegal	illegal

They separate the household sector from the others because it is unpaid labour and is not exchanged via markets using professional advertisement and/or payment, but via and within social networks. This leaves, for economic activities, only the formal, informal and criminal economical sectors of which then the informal and criminal is of further interest. Here the informal economy is interesting insofar that the products and services generated and provided in this segment are legal and only production/distribution. With the *products* and outcome of informal work such as harvesting crops, assisting the sick, building houses: nothing is wrong per se. Only the *process* of production and distribution (i.e. without paying taxes and mandatory SSCs) is illegal. This distinguishes those activities clearly from criminal activities, where also the products (arms, drugs, peddling stolen goods...) are illegal, not only the production and distribution.

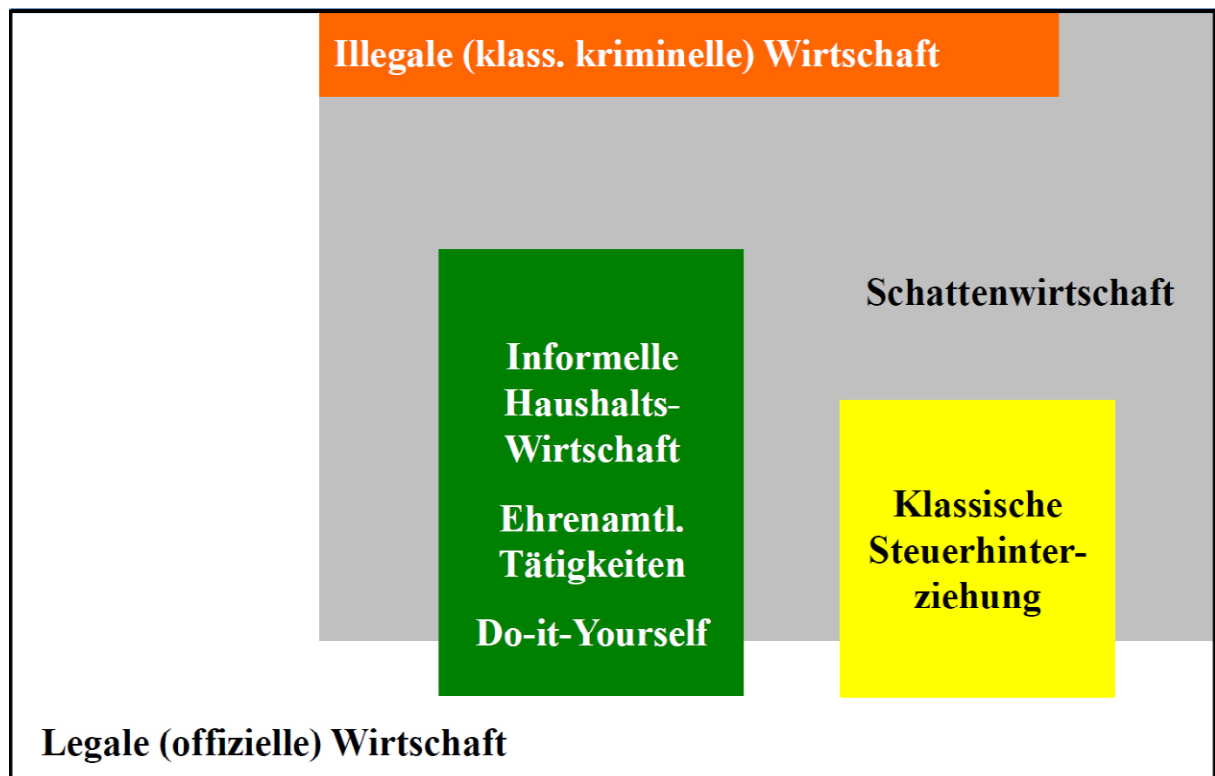
## 3 Spelling out the context

### 3.1 Relationship of sectors

For the German context, as well as for other economies of developed countries, the following graphic illustrates the interrelation of the different aspects within the shadow economy, which is distinctly different from “informal economies” of developing countries (see 6.3.2)

**Graphic 1 Interlinkage of different sectors of formal and informal economy**

<sup>6</sup> See (Altvater & Mahnkopf, 2002, p. 145)

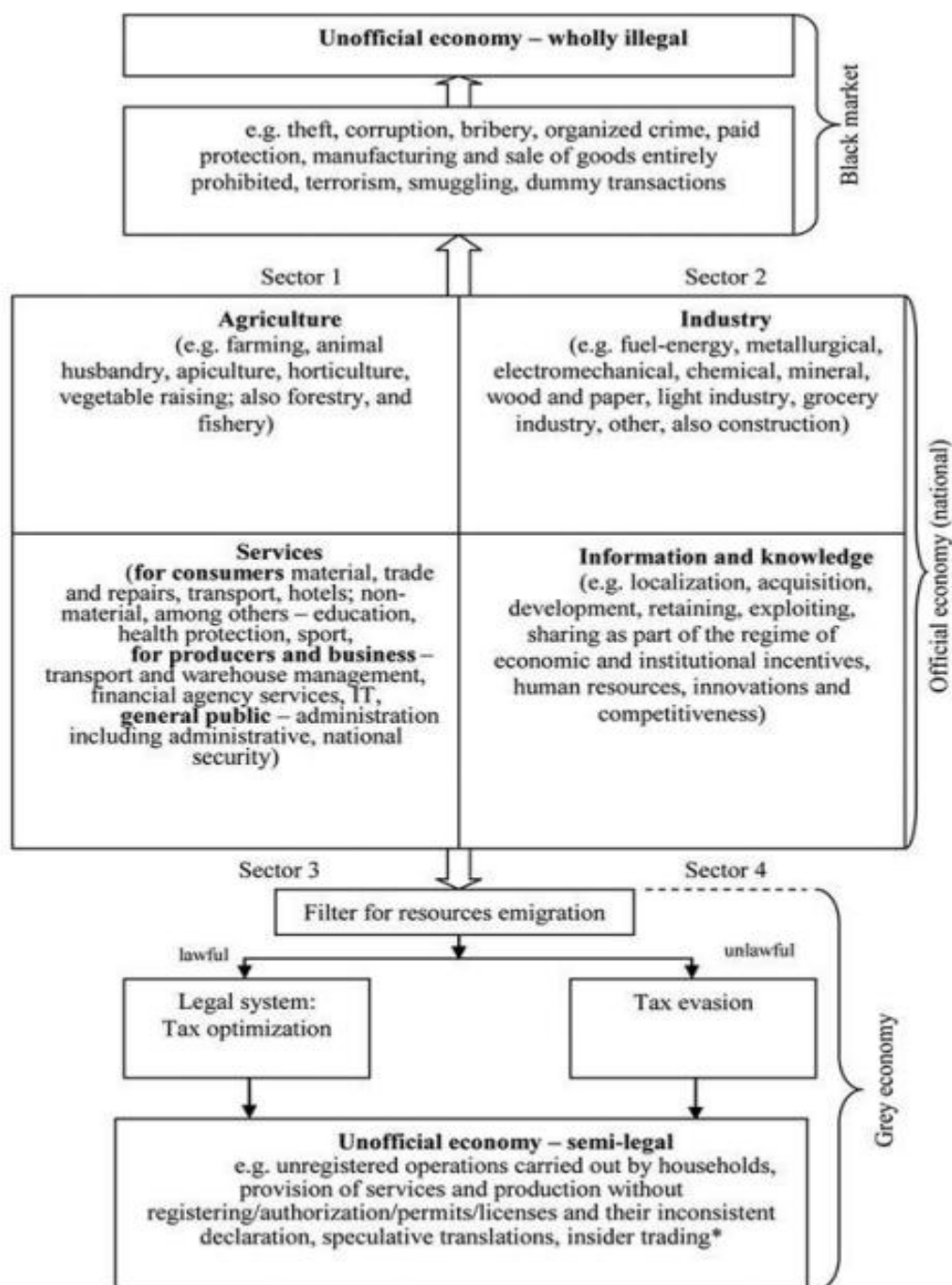


Source 1 (Schneider, 2014a, p. 7)

### **3.2 Relationship with tax evasion & fraud**

(Schneider, Raczkowski, & Mroz, 2015) provide a more detailed chart, spelling out how activities of the shadow economy link to the avoidance and evasion of taxes and mandatory SSCs:

Graphic 2 Where does the avoidance and evasion of taxes and SSCs enter the “unofficial economy”?



**Note:** \*Insider trading – use of non-public information in transactions relating to securities of their own companies by persons employed in the given company (insiders), or persons having privileged access to it (brokers, auditors)

**Source:** Raczkowski (2013)

Source 2 (Schneider, Raczkowski, & Mroz, 2015, p. 36)

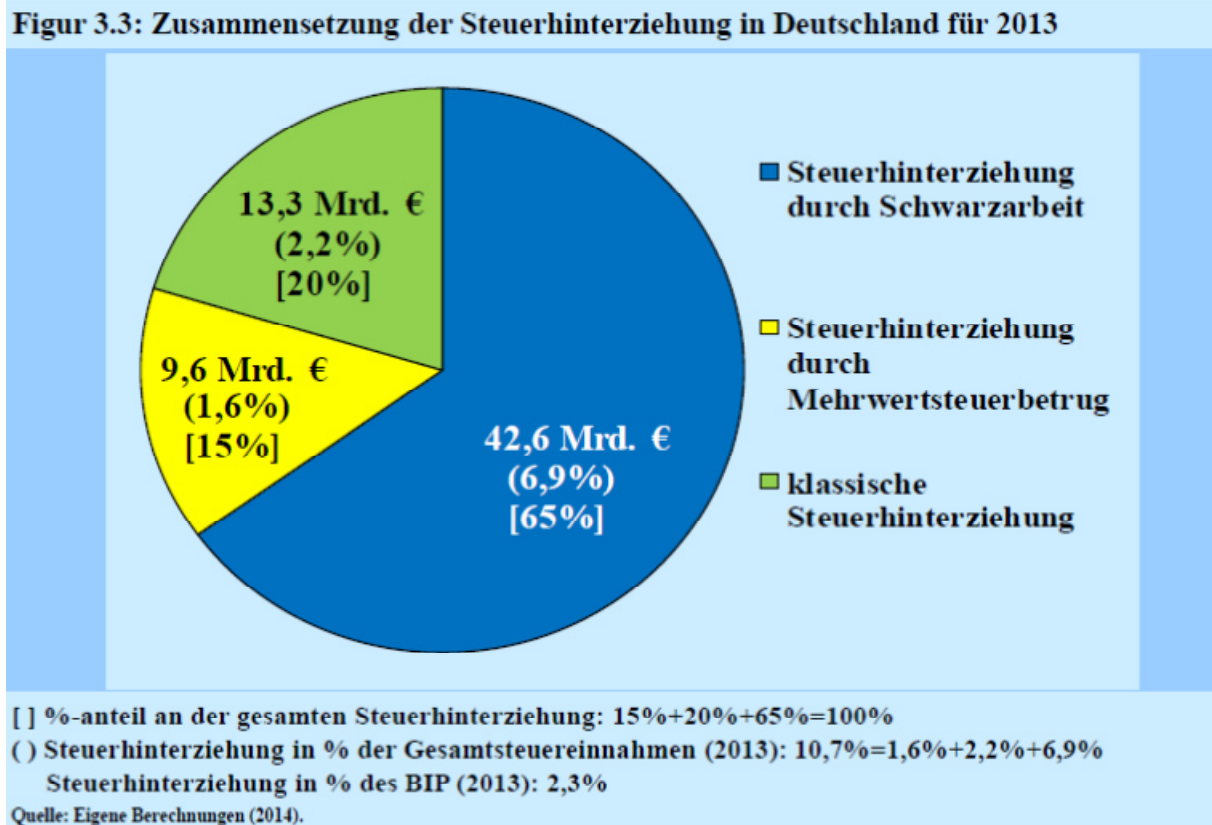
They explain further:

The average size of the shadow economy in 28 EU countries was 22.6 per cent in 2003 and decreased to 18.6 per cent (of official GDP) in 2014. We also consider the most important driving forces of the shadow economy. The biggest ones are with 14.6 per cent unemployment and self-employment, followed by tax morale with 14.5 per cent and GDP growth with 14.3 per cent. The proportion of tax evasion (accounting for indirect taxation and self-employment



activities) was on average 4.2 per cent (of official GDP) in Poland, 1.9 per cent in Germany and 2.9 per cent in the Czech Republic. (Schneider, Raczkowski, & Mroz, 2015, p. 34)

Schneider gives an estimate regarding the quantitative relation between the shadow economy and the more classical tax evasion and tax fraud for Germany. With “classical tax evasion” he probably refers to non-declaration or underdeclaration of income, the exaggeration of expenses, the transfer of capital abroad or hiding it in elaborate trust or foundation constructs etc. “Tax fraud with VAT” refers to Caroussel fraud and other forms of fraud linked to trade, import and export, while the third and largest segment illustrates the size of fraud via “Black Labour” (Schwarzarbeit).



Source 3 (Schneider, 2014a, p. 27)

### 3.3 Causes

The big question is, why the shadow economy is so attractive for economic activities? The answer is that there are many options and loopholes, starting within the EU, to “maximize” profits and gains, which are not vigorously enough addressed by governments. Schneider and colleagues state

- Still the main driving forces of the shadow economy are indirect taxes, followed by self-employment and unemployment. Hence, these are the most efficient policy options to reduce the shadow economy.
- Massive swindling of value added tax in intra-community trade within the EU requires real, and not makeshift co-operation, which should be taking place in real time and through coordinating actions in executive mode, e.g.: OLAF. Without that it would be mostly tax administrations of given fiscal jurisdictions who would decide on their own whether they protect their own national economy or unfair competition. At that, excessive interference in budget policy of given member state could be extremely dangerous and used for a variety of purposes in the event of excessive governance from outside. (Schneider, Raczkowski, & Mroz, 2015, p. 46)

(Schneider, 2014a, p. 9) adds, from his point of view and for Germany, the following aspects:

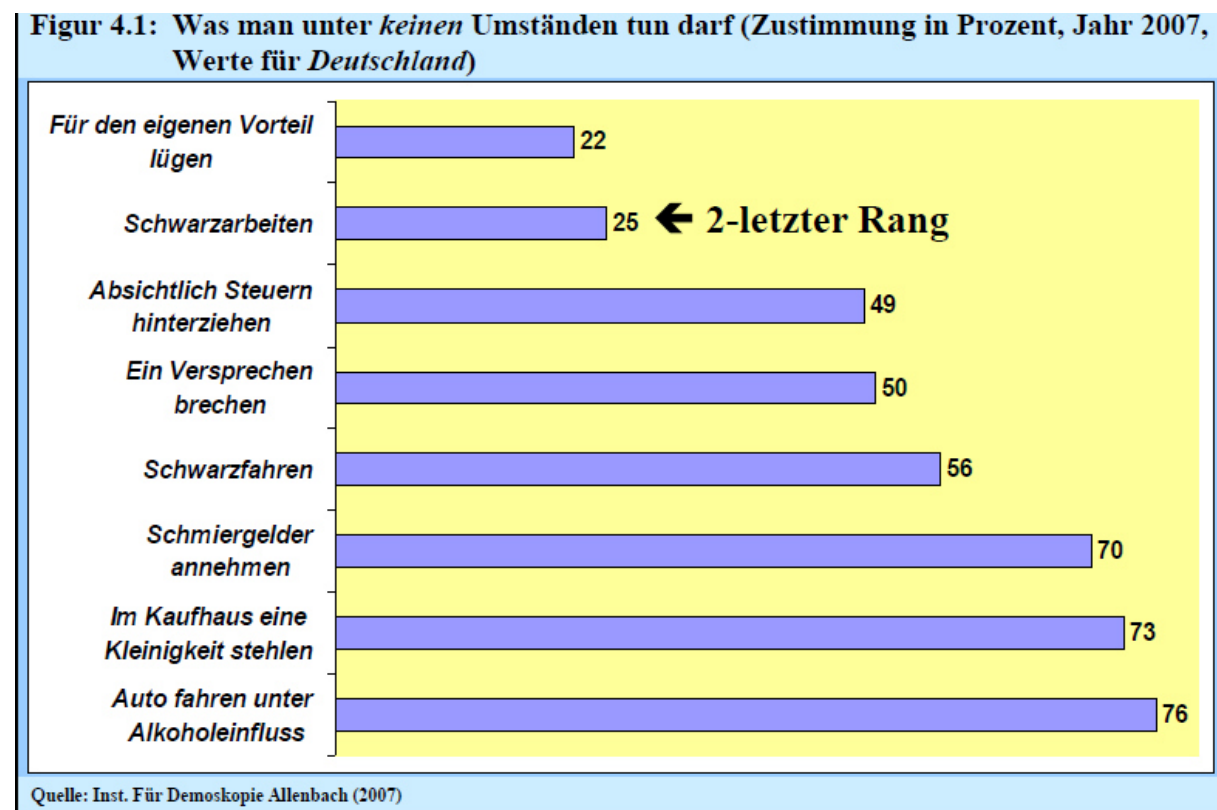
- (1) Zunehmende Staatstätigkeit (Abgabenbelastung + Regulierung),
- (2) Strukturelle Veränderungen des Arbeitsmarktes und des Beschäftigungssystems (z.B. Verkürzung der offiziellen Arbeitszeit und/oder steigende Arbeitslosigkeit) und
- (3) Einstellungs- und Wertewandel bei den Steuerzahlern/ Wählern und das Wissen, dass es die Nachbarn, Freunde und Bekannte auch tun.
- (4) Institutionelle Rahmenbedingungen; z.B. Good Governance, direkt demokratische Institutionen, etc.
- (5) Veränderungen durch Globalisierung, Ermöglichen von Dingen, die bislang nicht existierten (Migration, Verbrechen, Arbeitskräftehandel, aber auch die Beschäftigung von ‚Illegalen‘ in Privathaushalten)

Clearly, there is a lot of saving potential for every citizen and business involved since no Tax Wedge<sup>7</sup> exists within this form of economical activities and Gross equals Net Income, meaning: there is no income tax, no mandatory social security contribution or insurance to be paid in addition to the wage and other costs.

### 3.4 Moral framework and evaluation

Interesting enough, there is a distinct difference in public opinion regarding the moral evaluation of tax evasion and activities in the shadow economy. When asked, what one must avoid at all costs, there were big differences between Black Labour (25%), Tax Evasion (49), Corruption (70%) and Driving under Influence (76%).

Graphic 3 What offences Germans find most offensive?

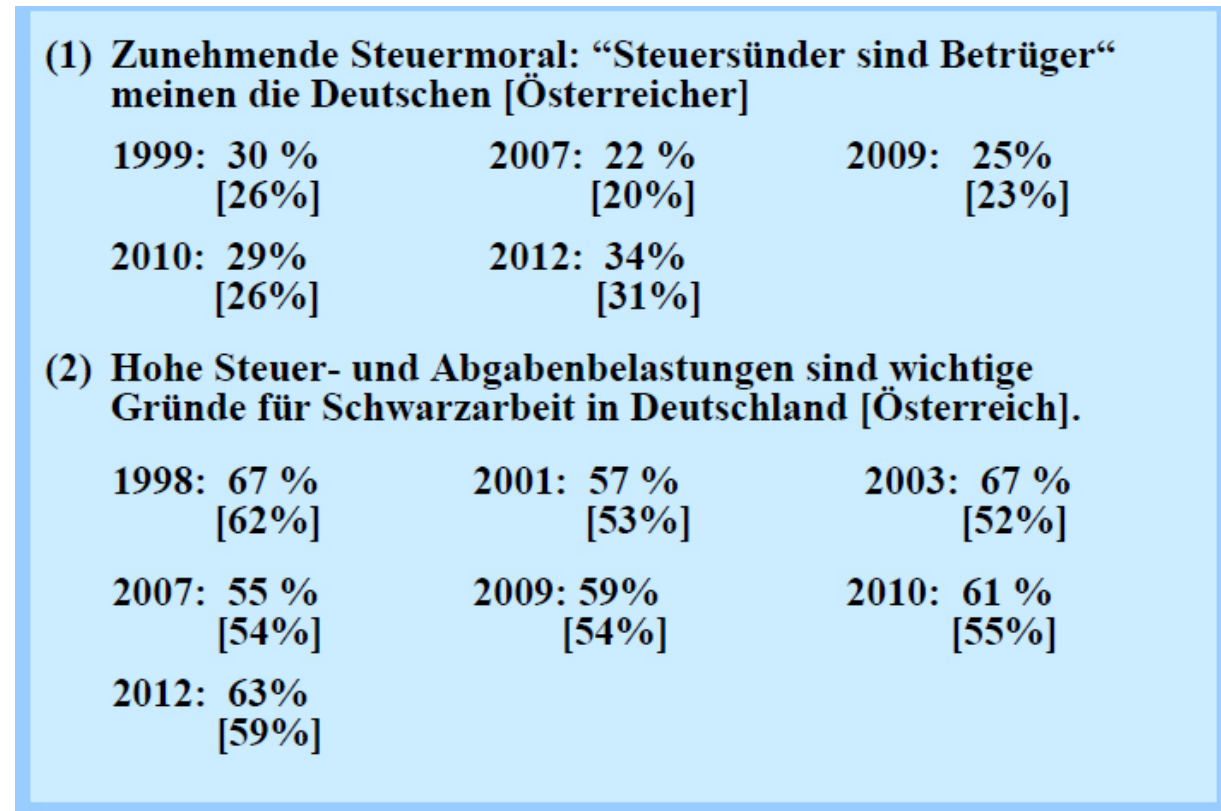


Source 4 (Schneider, 2014a, p. 32)

<sup>7</sup> Tax Wedge: The difference between the take-home wage of the worker and the total labour costs for the employer (including mandatory tax and social security payments).

The difference is also obvious in the answers to the following questions: While agreement to the statement “Tax Evader are Frauds” rose from 30% (1999) to 34% (2012), the excuse “High tax and SSC burden are the cause for Black Labour” declined from 67% (1997) to 63% (2012) in Germany.

Graphic 4 Shift in moral evaluation of offences over time



Source 5 (Schneider, 2014a, p. 31)

The interesting difference is that tax evasion is seen in connection with individual and deliberate fraud, while involvement with the shadow economy is seen as some sort of self-defence and excused with the high tax and SSC burden. Obviously, those doing tax evasion would probably argue in the same manner. It is further interesting, that there are shifts in the moral evaluation over the years: While acceptance of tax evasion is sinking, acceptance for involvement in the shadow economy is still considerable.

Further interesting attitudes towards the shadow economy are the following:

1. Only 3.6% of all Germans would report a Black Labourer to the authorities.
2. Even though controls intensified, 21% of Germans think that the likelihood of detection is minimal.
3. If Black Labour disappears, only 25% of the jobs would move into the formal economy.
4. 20.7% of those surveyed admitted to be involved in Black Labour over the past year.
5. 30.8% of those surveyed admitted to have somebody employed.
6. Regarding neighbours, those surveyed think that 50% think of their neighbours to be Black Labourers or 68% of them employing Black Labourers.

Graphic 5 How do people judge black labour morally and how the risk to be caught?

- (1) Nur 3,6% [2%] der Deutschen [Österreicher] würden einen Schwarzarbeiter anzeigen. [Für Österreich Befragungswerte von 1996 bis 2012.]
- (2) Gut 21% (2010) der Deutschen schätzen die Wahrscheinlichkeit als gering ein, als Schwarzarbeiter erwischt zu werden (2001: 18,2%; 2004: 15,1%). Trotz massiver Intensivierung der Kontrollen durch die Finanzkontrolle Schwarzarbeit.
- (3) Wenn es keine Schwarzarbeit in Deutschland [Österreich] mehr gäbe, würden
  - 45% [40%] diese Arbeiten *nicht* mehr *ausführen* lassen,
  - 30% [34%] diese Arbeiten *selber erledigen* (do-it-yourself), u. nur
  - 25% [26%] diese Arbeiten *offiziell vergeben*.

Source 6 (Schneider, 2014a, p. 33)

- (4) 20,7% haben in den letzten 12 Monaten nach eigenen Angaben selber schwarz gearbeitet und dies durchschnittlich knapp 6,5 Stunden pro Woche für etwa 10 Euro Stundenlohn. (Männer: 25%; Frauen: 16%)
- (5) 30,8% haben in den letzten 12 Monaten nach eigenen Angaben Arbeiten ohne Rechnung („schwarz“) erledigen lassen – und zwar durchschnittlich für 1.000 Euro. (Männer: 35,4%; Frauen: 26,5%)
- (6) Ansichten über Schwarzarbeit/Pfusch in Deutschland [Österreich]:
  - 3/4 [68%] sagen: „Meine Nachbarn vergeben Arbeiten ohne Rechnung“.
  - 2/3 [50%] sagen: „Meine Nachbarn arbeiten selber schon mal schwarz“.

Source 7 (Schneider, 2014a, p. 34)

An interesting point is Nr. 3, i.e. the argument, that 45% of economic activities would not take place at all if it were not for options available in the shadow economy. This strengthens the view of those arguing that also businesses in the legal sphere profit from Black Labour



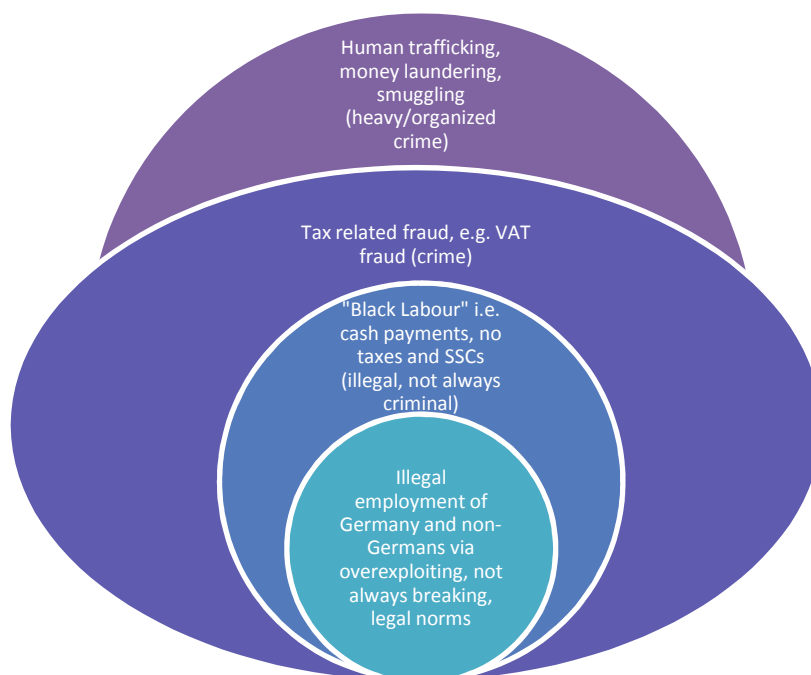
because they are involved in parts of projects done in the shadow economy, e.g. via sub contractors. That way, the informal economy does not only generate income through indirect taxes such as VAT, but also turnover and other taxes of legal businesses. This view is supported by conversation partners from the tax auditing department.

## 4 Own position

Looking back at chapters 2+3, the following is the view of the German research upon activities in the shadow economy:

The first distinction of Enste between the household/neighbourhood sector and the other sectors is very useful for the context of a developed country. Within international comparison and language, however, the separation between household activities and informal and irregular/criminal activities is usually not as fine-cut as it is in Germany (see 6.2) and therefore rather confusing than useful. This is why a three partite distinction of economic activities is adequate – a distinction, Enste also adopted in a later publication 2007.<sup>8</sup>

Graphic 6 Dimensions of the Shadow Economy



Tax related fraud occurs in two areas: First, related with black labour, e.g. the acquisition of material for those doing black labour, second, related to national and international fraud.

From my own work I want to emphasize the difference between the private and commercial on the one side, and within the criminal segment the importance of an involuntary/unknowingly violation of laws and the intentional violation (see also I/IV/6.2), namely that a criminal intention is important to really classify something illegal as criminal). This is important, because of the complexities mentioned by Enste in what he called “informeller Sektor” many Germans, and certainly many non-Germans, doing “black labour”

<sup>8</sup> Then, he distinguished only domestic economy, shadow economy and underground economy (Haushalt-/Selbstversorgungswirtschaft, Schattenwirtschaft, Untergrundwirtschaft) (See p. 3 of Enste, D./Hardege, St. (2007, March) Regulierung und Schattenwirtschaft. Vorabdruck aus Heft 1/2007 von IW Trends. Retrieved from [http://www.iwkoeln.de/\\_storage/asset/63595/storage/master/file/3737028/download/trends01\\_07\\_4.pdf](http://www.iwkoeln.de/_storage/asset/63595/storage/master/file/3737028/download/trends01_07_4.pdf))

are honest people who unknowingly break laws. This applies especially for ‘illegal’ migrants with the desire to feed their family back home, often themselves victim of criminal seduction.

## **5 Quantification – national aspects**

Linked to, and dependent on, the conceptual discussion above is the more methodological dispute about what kind of activities needs to be included in its evaluation. All this is due to the fact that activities of the informal economy occur by definition outside clear visibility and contestation.

### **5.1 Direct methods**

Direct methods to assess the extent of activities within the informal/shadow economy are

- well designed surveys or samples based on voluntary replies or tax auditing and other compliance methods.
- discrepancy between income declared for tax purposes and the actual detected one by audits.

Those are, however, good to understand in a qualitative way the behavior of cases under examination, but offer methodological weaknesses for any quantitative “guesstimates”. More promising, and therefore widespread, are therefore indirect approaches:

### **5.2 Indirect approaches**

Indirect approaches, which are also called “indicator” approaches, are mostly macroeconomic ones and use various (mostly economic) indicators that contain information about the development of the shadow economy (working overtime). A widespread approach here is the Discrepancy between National Expenditure and Income Statistics and Currency Demand Approach. Schneider preferred that approach due to the fact that many transaction within the Shadow Economy are cash based. Against that experts raised many objection. For example: besides payment also barter and other forms of compensation exist, or because also other criteria than tax and SSC payments influence dealings among partner in the Shadow Economy.

Alternative methods exist (Schneider, 2014a, p. 22f.), but guesstimates arising here are partly outdated and go back in time (1970, 80er, 90er und 00er Jahre), and Schneider is the author most often quoted, whose results are more or less in line with that arising when using the MIMIC-method.

### **5.3 MIMIC**

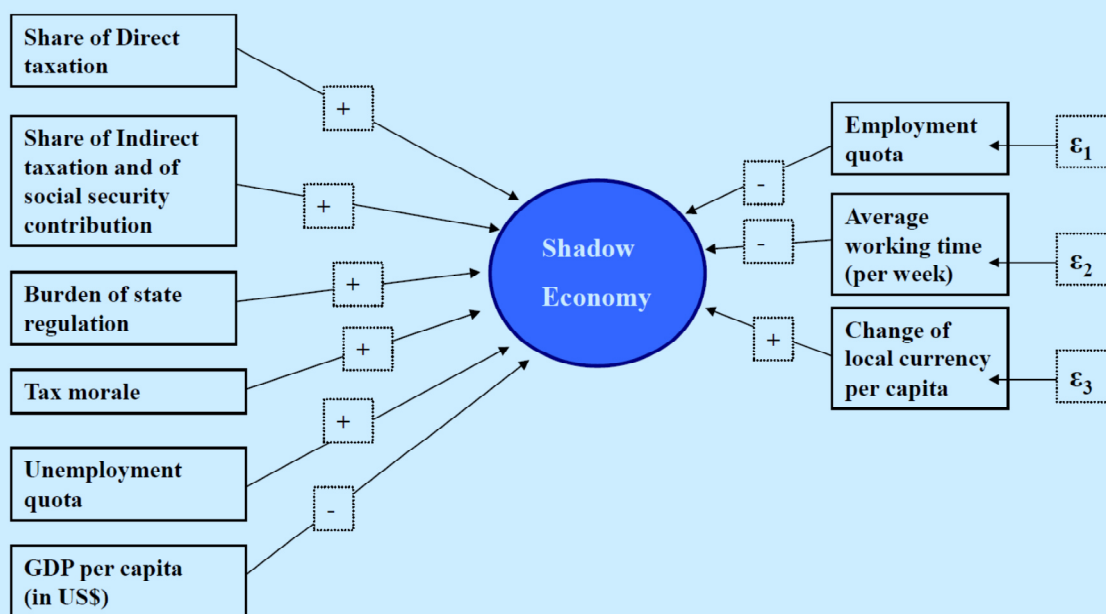
The Mimic (Multiple Indicators, Multiple Causes) Approach, starts from the premise and fact that the Shadow Economy is unobservable and many factors come into play when trying to get an estimation of size:

This method is based on the statistical theory of unobserved variables. The statistical idea behind such a model is to compare a sample covariance matrix, that is, a covariance matrix of observable variables, with the parametric structure imposed on this matrix by a hypothesized model.<sup>9</sup>

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<sup>9</sup> Schneider, F./Buehn, A. (2016, March) Estimating the Size of the Shadow Economy: Methods, Problems and Open Questions. Institut zur Zukunft der Arbeit (IZA) Discussion Paper. Retrieved from <http://ftp.iza.org/dp9820.pdf>

**Figure 2.2: MIMIC Estimation Procedure**



- (1) Time Period: various years
- (2) The currency demand method will be used to transform the ordinal index into cardinal index of shadow economy.

Source 8 (Schneider, 2014a, p. 19)

## 5.4 Numbers

Using his methods, Schneider and the Institut of Applied Economic Research (IAW) come to the following quantitative “guesstimates” for Germany:

**Table 3 Development of Shadow Economy 1995-2015**

Year	Shadow Economy in billion €	Relationship of Shadow Economy to official GDP
------	-----------------------------	--

1995	241	13,0
1996	258	13,8
1997	275	14,4
1998	281	14,3
1999	302	15,1
2000	322	15,7
2001	330	15,7
2002	350	16,4
2003	370	17,2
2004	356	16,2
2005	346	15,6
2006	346	15,0
2007	349	14,4
2008	347	14,0
2009	352	14,8
2010	348	13,9
2011	344	13,2
2012	343	12,9
2013	341	12,4
2014	339 <sup>a</sup>	12,2 <sup>a</sup>
2015	339 <sup>a</sup>	12,2 <sup>a</sup>

Source 9 (Schneider & Boockmann, 2015, p. 22)

First checks on 2015 data confirm the little impact which the introduction of minimum wage had regarding the development of the shadow economy. It is noteworthy to see that a peak in shadow economical activities occurred around the German Unification, when a lot of construction was going on. This is in accordance with own findings in the area of the shadow economy and the employment of illegal migrants between 1997 and 2005 (Alt, Illegal in Deutschland, 1999) (Alt, Leben in der Schattenwelt, 2003).

Besides numerical “guesstimates” of the wider shadow economy (Schattenwirtschaft), involving not only Black Labour, but also a number of other forms of fraudulent behavior, Schneider also tries to establish the size of more specific black labour (Schwarzarbeit) market for Germany, Austria and Switzerland:



Table 4 Comparison extent of Shadow Economy in GER, A and CH

**Tabelle 5.1: Entwicklung der „Vollzeit-Inlands-Schwarzarbeiter“ und der illegalen ausländischen Beschäftigten in 1,000 Personen in D, Ö und CH von 1995 bis 2014<sup>1)</sup> – Teil 2**

Jahr	Deutschland		Österreich		Schweiz	
	Vollzeit-Inlands-Schwarzarbeiter	Illegale ausländ. Beschäftigte	Vollzeit-Inlands-Schwarzarbeiter	Illegale ausländ. Beschäftigte	Vollzeit-Inlands-Schwarzarbeiter	Illegale ausländ. Beschäftigte
2005	8.549	1,002	750	104	520	82
2006	8.124	952	716	98	493	78
2007	8.206	961	709	97	490	77
2008	8.154	955	679	93	471	74
2009	8.272	968	713	98	484	76
2010	7.875	922	710	96	480	74
2011	7.761	908	620	92	461	72
2012	7.708	892	609	90	450	69
2013 <sup>2)</sup>	7.650	871	591	87	433	65
2014 <sup>2)</sup>	7.773	884	624	92	427	63

Quelle: Eigene Berechnungen (2014), <sup>1)</sup>Erläuterungen: Inländische Vollzeitschwarzarbeiter sind eine fiktive Größe, die aus den Stunden, die in der Schattenwirtschaft gearbeitet werden, berechnet werden. Die illegal ausländischen Beschäftigten stellen eine erste Abschätzung der illegal (für Schattenwirtschaftsaktivitäten) beschäftigten Ausländer dar. <sup>2)</sup>Prognose bzw. Schätzwert, da die offiziellen Arbeitsmarkt-Statistiken noch nicht vorliegen.

Source 10 (Schneider, 2014a, p. 36)

Regarding economic sectors, Schneider offers the following for Germany and Austria

Table 5 Composition of sectors in Shadow Economy in GER and A

**Tabelle 3.2: Aufteilung der Schattenwirtschaft in Wirtschafts- und Dienstleistungssektoren in Österreich und Deutschland**

Sektor	Aufteilung der Schattenwirtschaft in Österreich Jahr 2014		Aufteilung der Schattenwirtschaft in Deutschland Jahr 2014	
	in %	Mrd. €	in %	Mrd. €
Baugewerbe und Handwerksbetrieb (inkl. Reparaturen)	39 %	8,0	38 %	131,4
Andere Gewerbe- und Industriebetriebe (Kfz, Maschinen, etc.)	16 %	3,3	17 %	58,8
Dienstleistungsbetriebe (Hotels, Gaststätten, etc.)	16 %	3,3	17 %	58,8
Unterhaltungs- und Vergnügungsbranche	12 %	2,5	13 %	44,9
Sonstige Gewerbebetriebe und haushaltsnahe Dienstleistungen (Nachhilfe, Friseur, Babysitten)	17 %	3,4	15 %	51,9
Gesamte Schattenwirtschaft	100%	20,5	100%	345,8

Quelle: Eigene Berechnungen (2014).

Source 11 (Schneider, 2014a, p. 30)

The damage being done in this context is enormous. (Mahr, 2011, p. 358) has the following example: Just assume that 1 Schwarzarbeiter (Black Labourer) works for 2000 hours a year, at an average hourly calculation of 20 Euro, without taxes and SSCs being paid for that. This person would be paid EUR 40,000 a year without taxes and SSCs being paid for that. If you just assume that there are 100,000 Schwarzarbeiter, you arrive at a turnover of EUR 4 billion already, of which up to EUR 2 billion can be tax-free-profits for those being engaged in the process. And: Mahr is talking merely of construction, where one can safely assume several 100,000 Schwarzarbeiter. However, construction is only one sector of illegal employment, many more like transportation, food sector, private care etc. needs to be added into the overall assessment!

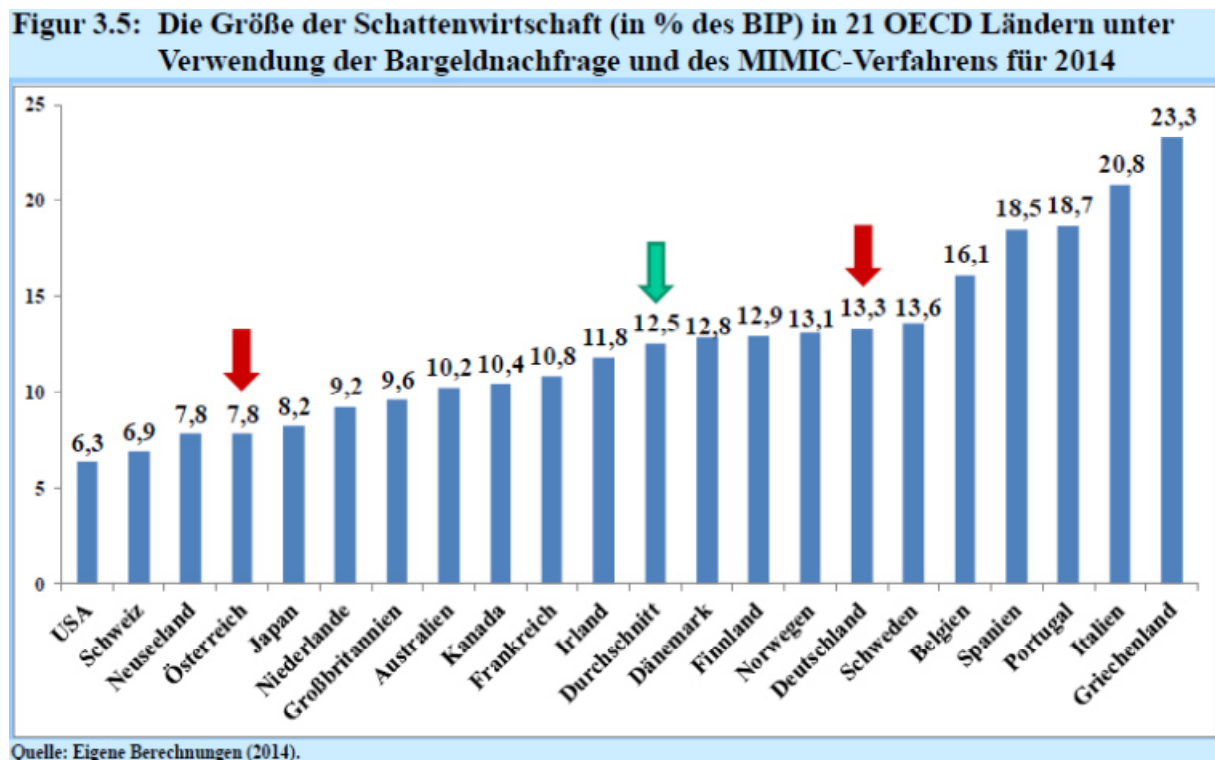
It is noteworthy that some important sectors such as food/agriculture, storage and restaurants are not explicitly noted or, at least partly covered with the “entertainment sector”. It is also not obvious where private care of the elderly and sick finds its appropriate place, since it is certainly more than merely “neighbourhood-assistance”.

## 6 Quantification – International aspects

### 6.1 Germany in EU/OECD comparison

In an international comparison of the extent of shadow economies, Germany is placed by Schneider as follows:

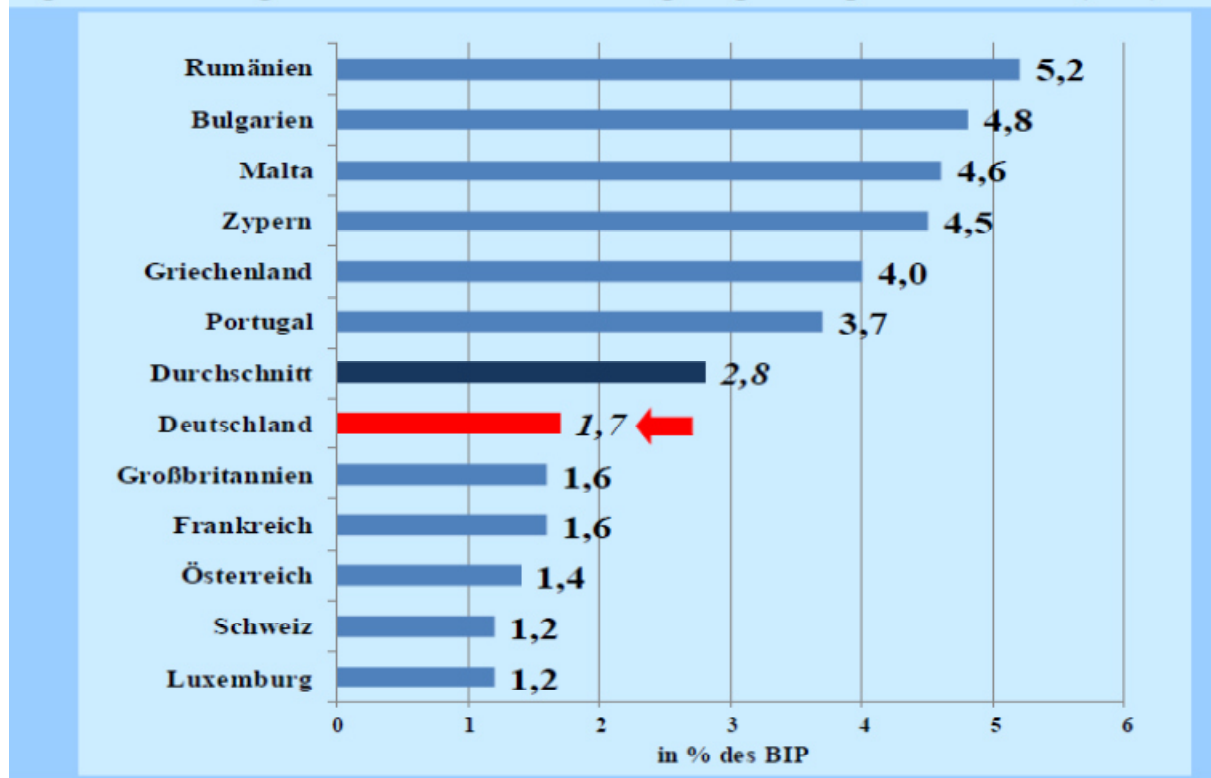
Graphic 8 Ranking of size of Shadow Economy in GER and A within OECD



Source 12 (Schneider, 2014a, p. 29)

More specifically regarding the extent of tax evasion, Schneider estimates the following in comparison:

**Figur 3.4: Ein Vergleich der Steuerhinterziehung einiger europäischer Länder (2010)**



Quelle: Eigene Berechnungen (2014) und Schneider und Buehn (2013).

Source 13 (Schneider, 2014a, p. 28)

## 6.2 Conceptual Difference between developed and developing countries

Since the socio-economic and cultural context of developed and developing countries is very different it is obvious that this has also an impact on the conceptual and quantitative extent and importance of the Shadow and or Informal economy. Schneider puts it as follows:

There is ... a very large shadow economy in many less developed countries. Here we use the less 'loaded' term 'informal economy' to describe this activity because its characteristics are different from the shadow economy in the West. The informal sector in poorer countries is typically between 25 and 40 per cent of national income and can represent up to 70 per cent of non- agricultural employment. In such countries, informal activity often arises because of the inadequacies of legal systems when it comes to formalising business registration rather than as a result of deliberate evasion activity. Nevertheless, the problems that informality can bring are enormous: it can be a serious constraint on business growth; and the lack of enforceability of business and employment contracts in a country makes prosperity much harder to achieve.<sup>10</sup>

A difference when comparing the informal economy in developed countries and developing countries is also the strength of institutions both providing services and prosecuting. In developed countries, institutions "providing services" refer to those of social welfare from which those defaulting on paying taxes and SSCs nevertheless profit when in need (which is why it is doubly unfair not to pay taxes and SSCs since it is damaging for others and for

<sup>10</sup> P. 21f. of Friedrich Schneider/Collin Williams (2013) The Shadow Economy. London: Institute for Economic Affairs. Retrieved from <http://www.iea.org.uk/sites/default/files/publications/files/IEA%20Shadow%20Economy%20web%20rev%207.6.13.pdf>

oneself as well). Institutions “prosecuting” are those investigating and prosecuting all forms of illegal and illicit labour in the Shadow Economy.

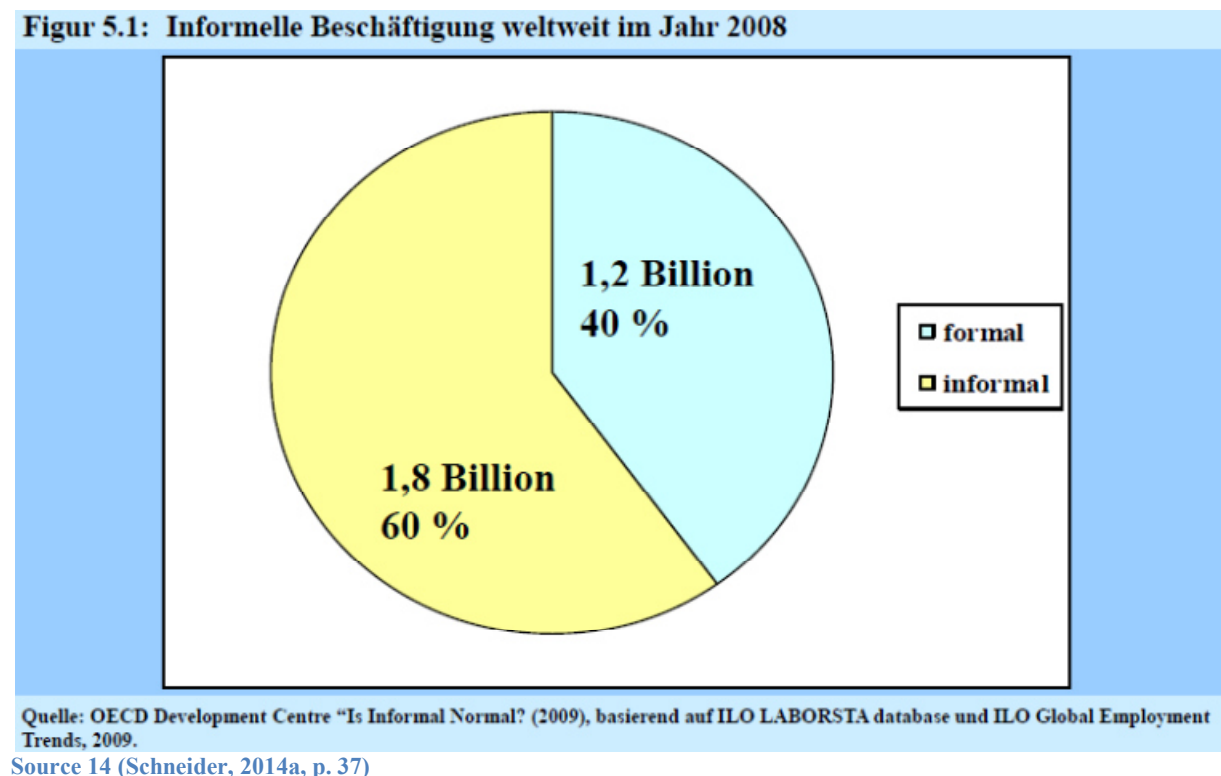
In developing countries, on the other hand, there are hardly any social security services and benefit systems established, which makes it questionable to many why they should pay taxes and SSCs in the first place.

## 6.3 Numbers and developments

### 6.3.1 Global dimension

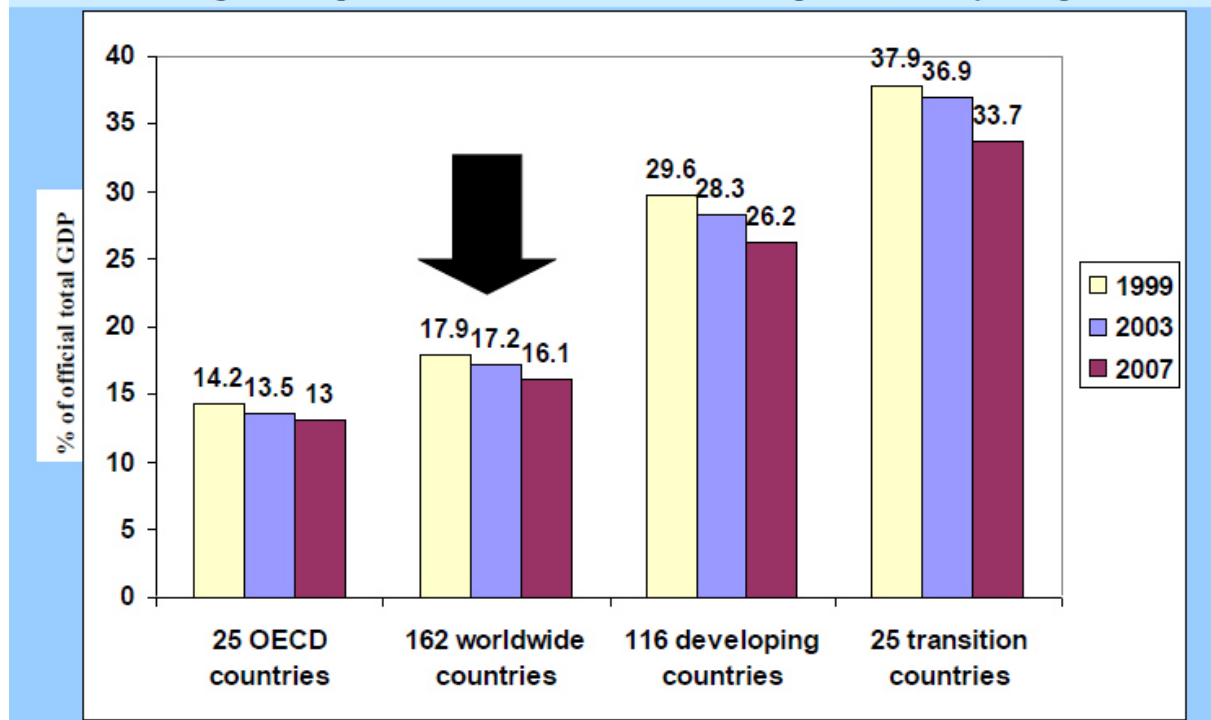
Obviously, the opaque composition of the informal economy, only a rough estimate can be given to illustrate somehow the dimension, importance and relationship between formal and informal economy, the latter with 60% being by far the largest:

Graphic 10 Relationship between the formal and informal sector



As the following graphic illustrates, the size of the informal/shadow economy seems to be shrinking. One needs to bear in mind, however, that the impact of the 2007 World Financial and Economic Crisis has not been factored in:

**Figure 5.3: Size and Development of the Shadow Economy of Various Countries Groups (Weighted Averages (!); in percent of official total GDP of the respective Country Group)**



Source 15 (Schneider, 2014a, p. 39)

### 6.3.2 Africa

A major reason for the existence of the informal economy in African states is under-regulation by the state, i.e. that there are segments of the economy which exist outside state control. But this has not happened out of the blue, but is a consequent of neoliberalism and “structural adjustment programs” by institutions of the Washington Consensus: “The highest levels of informality coincide with the era of liberalization, which was characterized by significant job cuts.” (Phiri & Nakamba-Kabaso, 2012, p. 15).

Today, researcher Robert Neuwirth has the opinion, economical growth in Africa is linked to the informal sector, not the formal one. Having lived on dumps of African Megacities he observed that those collecting and recycling garbage generate a lot of value, different from the faltering formal economic sector, thus offering more people a way out of poverty.<sup>11</sup>

Regarding the share of informal employment in total Non-Agricultural Employment in Africa, Schneider offers the following table comparing different world regions:

<sup>11</sup> „Die Schattenwirtschaft wird verachtet als krimineller Schwarzmarkt, dabei ist sie eine Supermacht“, behauptet Robert Neuwirth, ein amerikanischer Autor, der auf der größten Müllkippe Afrikas in der nigerianischen Hauptstadt Lagos steht. Hier wühlen Hunderte Menschen im Abfall einer Millionenstadt nach Verwertbarem. Soll das ein Sinnbild einer ökonomischen Supermacht sein? „Zahlen der Weltbank belegen, dass diese Menschen zusammen zehn Billionen Dollar jährlich erwirtschaften. Wären sie Einwohner eines Landes, wäre es nach den USA die zweitgrößte Volkswirtschaft“, sagt Neuwirth.“ <http://www.arte.tv/guide/de/048017-000/der-glanz-der-schattenwirtschaft>



Table 6 Sectoral composition of Shadow Economy in developing countries

<b>Table 5.2: Share of Informal Employment in Total Non-Agricultural Employment by five-year period</b>				
<i>Region</i>	<b>Average Share of Informal Employment in % of Total Non Agricultural Employment over</b>			
	<b>1985-89</b>	<b>1990-94</b>	<b>1995-99</b>	<b>2000-07</b>
<b>22 South- and Middle American Countries</b>	<b>32.4</b>	<b>35.4</b>	<b>40.3</b>	<b>50.1</b>
<b>34 Asian Countries</b>	<b>55.9</b>	<b>60.4</b>	<b>65.4</b>	<b>70.2</b>
<b>42 African Countries</b>	<b>40.3</b>	<b>47.1</b>	<b>52.4</b>	<b>60.5</b>
<b>21 Transition Countries</b>	<b>30.9</b>	<b>32.3</b>	<b>35.4</b>	<b>40.2</b>

Source: Own calculation: using OECD 2009, pages 34-35; and Charmes (2002, 2007, 2008) for the ILO Women and Men in the Informal Economy, 2002. For the most recent period: Heintz and Chang (2007) for the ILO, and for West Asia: Charmes (2007 and 2008).

Source 16 (Schneider, 2014a, p. 40)

Here, however, only the non-agricultural employment has been measured, which normally is not done by African governments, who measure agricultural and non-agricultural employment together (see below 6.3.4+5)

### 6.3.3 Comparison Germany, Kenya, Zambia

In a study done for the World Bank from 2010, Friedrich Schneider and his team, following his econometric approach, compares the share of the shadow economy in relation to the “official” GDP and its development worldwide. As far as our research is concerned, his findings for Germany, Kenya and Zambia are as follows (Schneider & al., Shadow Economies All over the World, 2010)

Table 7 Comparison of Shadow Economy in GER, KEN and ZAM, 1999-2007 (% of GDP)

	1999	2003	2007	Country average
Germany	16.4	16.3	15.3	16.0
Kenya	33.7	34.6	29.7	33.2
Zambia	49.3	47.5	43.9	47.1

### 6.3.4 Development Kenya

If this segment is taken into account, the share is much higher: The Kenyan governments report on the Economic Outlook 2015 reveals that the informal sector had the largest share of employment accounting for 82.7 per cent of the total employment. The total number of self employed and unpaid family workers within the modern sector was estimated to have increased from 83.8 thousand in 2013 to 103.0 thousand in 2014 (Economic Outlook 2015, 2015).

Regarding the view of Robert Neuwirth in 6.3.2, there is indeed no trend for formal employment incorporating those employed informally, since growth rates in the informal sector are outstripping those in the formal sector:

**Table 8 Growth of Kenyan formal and informal employment and real average earnings (2000-2012)**

	Real Average earning growth (%)	Formal employment growth (%)	Informal employment growth (%)
2000	4.7	0.4	11.0
2001	8.7	-1.1	7.7
2002	12.7	1.3	10.0
2003	-2.7	1.5	8.6
2004	9.9	2.1	8.0
2005	2.4	2.9	6.7
2006	1.3	2.8	6.6
2007	4.5	2.6	6.1
2008	-10.2	1.8	5.3
2009	-4.7	2.8	7.9
2010	-0.4	2.9	7.6
2011	-8.1	3.4	6.3
2012	-4.8	3.1	6.0

Source 17 (Bigsten, Manda Kulundu, & al., 2014, p. 14)

And another insight is revealed in the preceding table: The table illustrates that since 2008, real average earning growth in Kenya is declining, while the informal employment still displays higher growth rates than formal employment. This is, more likely than not, one consequence of the World Financial and Economic Crisis.

### 6.3.5 Development Zambia

Zambia is similar to Kenya, and the share of informal sector employment is given with 80.3%:

**Table 9 Number and percentage of formal and informal sector employment Zambia 2015**

Residence, Stratum and Province, Zambia, 2015.

Residence, Stratum, Province and Industry	Formal Sector		Informal Sector		Number Of Employed Persons, 12 Or Older
	Number	Percent	Number	Percent	
<b>Total Zambia</b>	<b>983,162</b>	<b>19.7</b>	<b>4,018,939</b>	<b>80.3</b>	<b>5,002,101</b>
Male	712,498	25.8	2,048,361	74.2	2,760,859
Female	270,664	12.1	1,970,577	87.9	2,241,242
<b>Residence</b>					
Rural	249,708	7.9	2,891,363	92.1	3,141,070
Urban	733,454	39.4	1,127,576	60.6	1,861,030

Source 18 (Central Statistical Office, 2016, p. 61)

While it is statistically easy to compute the income distribution of a formal economy, there are obvious problems when it comes to the informal economy, where perhaps no salaries are paid (e.g. in subsistence farming) or no paid salaries are recorded. Still, the Labour Force Survey of 2012 comes up with the following insights:

**Tabelle 10: Employment of Zambian population in informal sector 2012**

INFORMAL SECTOR
-----------------

<b>Occupation</b>	<b>Non Agriculture</b>	<b>Agriculture</b>
Managers	13,247	1,724
Professionals	20,465	205
Technicians and Associate Professionals	16,166	745
Clerical Support Workers	4,440	1,228
Service and Sales Workers	565,171	8,948
Skilled Agriculture, Forestry & Fisheries Workers	45,144	2,586,964
Craft and Related Trades Workers	293,815	11,586
Plant and Machine Operators & Assemblers	61,190	1,358
Elementary Occupations	847,523	169,713
Other	69	2001
Not Stated	114	438
<b>Total</b>	<b>1,867,342</b>	<b>2,784,911</b>

Source 19 (Central Statistical Office , 2013, p. 64)

This table illustrates that there are not merely precariously employed, low paid people working in the informal economy, but also those where one can assume high and decent payment and an according ability to pay ones fair share of taxes and SSCs, e.g. professionals or even managers! This is why “informal sector enterprises are usually characterized by inexistence of registration with national authority, lack of contributions to social security scheme and lack of entitlement to annual paid and sick leave by workers.” (Central Statistical Office , 2013, p. 57). That way the CSO confirms that a major problem in developing countries is the lack of regulation and registration and not, as in Germany, overregulation.

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