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Asymmetries in EU current account data

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ASYMMETRIES IN EU CURRENT ACCOUNT DATA[1]

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1. INTRODUCTION

Asymmetries are an inherent feature of all statistics for which "mirror" statistics are collected, i.e. for which two countries collect the same type of information in relation to each other. They occur when one country's data do not correspond to the data for the same transaction reported by its partner country. In the case of foreign trade and balance of payments (BoP) transactions, this is reflected in the credits (exports) or debits (imports) collected by the two countries. For example, credits and debits reported by one country to and from another should, in theory, correspond with the debits and credits of that counterpart country. In reality, however, for a variety of reasons, it is rarely the case that two data sources provide exactly the same results, and so they lead to a global asymmetry.

Internationally agreed methodological guidelines and standards exist to provide a common framework for reporting on balance of payments, aiming to ensure the use of the same concepts and definitions. The implementation of these standards across different countries aims to minimize asymmetries due to basic methodological differences. These guidelines, however, are still open to a degree of interpretation and it is likely that an element of systematic mis-reporting remains. These asymmetries can mainly be attributed to a number of different factors, such as:

- different data collection systems leading to different coverage
- differences in the classification of items within the accounts
- discrepancies in the time of recording transactions
- incorrect geographical identification of the counterpart
- different treatment of complex transactions (brokers in London, for instance) even where a resident may be the ultimate beneficiary.

During the past years, the situation concerning intra-EU asymmetries has been extensively analysed and reported by Eurostat (in collaboration with Member States and the European Central Bank) within the framework of the Ad Hoc Committee on Asymmetries, Technical Group on Asymmetries, Technical Group on Travel, Technical Group on Merchandise Transport and the Task Force on Reconciliation.

Recently, the issue of asymmetries has been raised in various contexts. Some countries have asked for tables from Eurostat in order to study bilateral asymmetries. Recent discussions of the quality reports on balance of payments statistics, to be prepared by the Member States in the framework of BoP Regulation, have also brought up the issues of use of mirror data and asymmetries. Asymmetries are a major concern for Eurostat, as they reflect on the quality and credibility of the BoP statistics; further efforts to reduce these asymmetries are essential.

The present document describes the current asymmetries in the current account in general and in data on international trade in services in particular. It also raises the need to identify possible future actions to reduce the asymmetries.

2.   ASYMMETRIES - A WORLD-WIDE PROBLEM

Asymmetry is a world-wide problem. Table 1 presents the situation of global imbalances in the current account covering the period 1997-2004. In all the years except 1997 the world current account showed negative imbalances (i.e. an excess of recorded debits over recorded credits). The highest imbalance of US$ -136 billion was recorded in 2000 and 2001, accounting for 0.7% of total transactions (credit + debit). Since then the asymmetries have decreased both in absolute and relative terms.

Table 1: Current account, world (in billion US$), global asymmetry (%)

	Credit	Debit	Net	Net%total
1997	8388	8372	16	0.1
1998	8419	8481	-62	-0.4
1999	8727	8828	-101	-0.6
2000	9690	9826	-136	-0.7
2001	9350	9486	-136	-0.7
2002	9715	9827	-112	-0.6
2003	11299	11321	-22	-0.1
2004	13603	13631	-28	-0.1

Source: IMF Balance of Payments Statistics Yearbook, 2004, 2005

The situation is significantly different for different items of the current account. While *goods* are characterised by a continuous positive asymmetry, other items predominantly show negative imbalances. Chart 1 shows that, in relative terms, asymmetries in *income* and *current transfers* are much higher than those of *goods* and *services*.

Chart 1: Global asymmetries, net as percentage of total transactions (credit + debit)

Source: IMF Balance of Payments Statistics Yearbook, 2004, 2005

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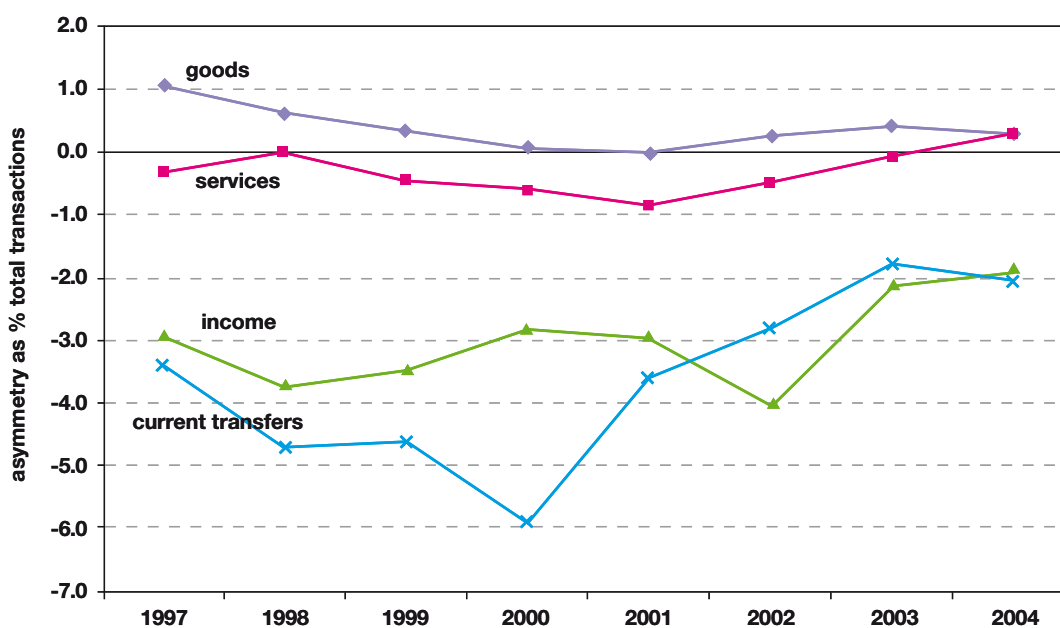
3. EVOLUTION OF INTRA-EU ASYMMETRIES

In recent years, the intra-EU asymmetries on the current account have become a source of great concern due to their size and persistence. Discrepancies identified in the bilateral balances of payments to some extent affect the accuracy of the EU figures.

Table 1 shows credit and debit reported to and from EU15 Member States[2]. Net values (credit – debit) reflect absolute asymmetries, while relative asymmetries are presented as a percentage of total transactions (credit + debit). The intra-EU15 asymmetries of the current account became increasingly important from the beginning of 1990s. They are also significantly higher, in relative terms, than the world asymmetries (compare table 1 and table 2). In 1998 these asymmetries reached €69 billion, equivalent to 1.8% of total transactions. After falling to a relatively low value in 2002, the asymmetries increased again in 2004 to €59 billion (1.1%).

Table 2: Intra-EU15 current account asymmetries (in billion €)

	Credit	Debit	Net	Net%total
1997	1833.1	1780.6	52.5	1.5
1998	1981.0	1912.1	69.0	1.8
1999	2149.1	2107.4	41.7	1.0
2000	2525.3	2474.2	51.0	1.0
2001	2617.6	2562.6	55.0	1.1
2002	2620.4	2601.3	19.0	0.4
2003	2623.9	2593.6	30.2	0.6
2004	2831.6	2772.2	59.4	1.1

Source: Eurostat

Data for the enlarged European Union (EU25)[3] are available from 2001. Table 3 shows that intra-EU25 asymmetries are higher than those for intra-EU15. They reached a maximum value of €80.4 billion in 2004. Preliminary values for 2005 show a slight improvement.

Table 3: Intra-EU25 current account asymmetries (in billion €)

	Credit	Debit	Net	Net%total
2001	2913.1	2845.4	67.7	1.2
2002	2931.3	2894.9	36.4	0.6
2003	2955.0	2906.8	48.2	0.8
2004	3232.3	3151.9	80.4	1.3
2005	3500.3	3426.2	74.1	1.1

Source: Eurostat

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2   Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, United Kingdom

3   EU15 + Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, Slovakia

In absolute terms, the highest positive intra-EU25 asymmetry occurs in the *goods* account, exceeding €100 billion in 2003 and remaining stable at a very high level since then. They are followed by the *income* account, reaching minus €32 billion in 2004. Although the latter are still higher in 2005 compared to 2001, the last three years have shown a gradual improvement. As far as *services* are concerned, asymmetries rose steadily from almost zero in 2001 to over €16 billion in 2005. Asymmetries for *current transfers* were unstable over time, changing from positive to negative in alternate years. The values are within a range of € -6.4 billion and € +1.4 billion.

Chart 2 presents the relative intra-EU25 asymmetries, calculated as total net discrepancies as a percentage of the sum of intra-EU25 credits and debits. It shows that the major components of the current account involved with the asymmetries are the *goods* and *income* accounts. As can be seen, apart from 2001 the highest relative discrepancies occur in the *income* accounts. The rise in *services* asymmetries is also confirmed.

The relative discrepancies in the goods are positive in value and, although quite high, they remain stable. BoP goods statistics are generally based on foreign trade statistics compiled by the Member States. The intra-EU trade statistics are produced from the data collected through the "Intrastat" system where the coverage is less exhaustive than that of a customs-based system. Since the introduction of Intrastat in 1993, the intra-EU imports (arrivals) have been around 5% below the value of intra-EU exports (dispatches) on average, indicating a substantial under-reporting of intra-EU imports that causes an asymmetry in the trade balance. In the case of the intra-EU *goods* account, the adjustment from cif to fob makes the existing intra-EU discrepancies worse. Other important factors contributing to the high asymmetries recorded in the EU current account are the use of community and national concepts and the risk of double counting of services for transactions of goods with non-residents.

Chart 2: Intra-EU25 asymmetries, net as a percentage of total transactions (credit + debit)
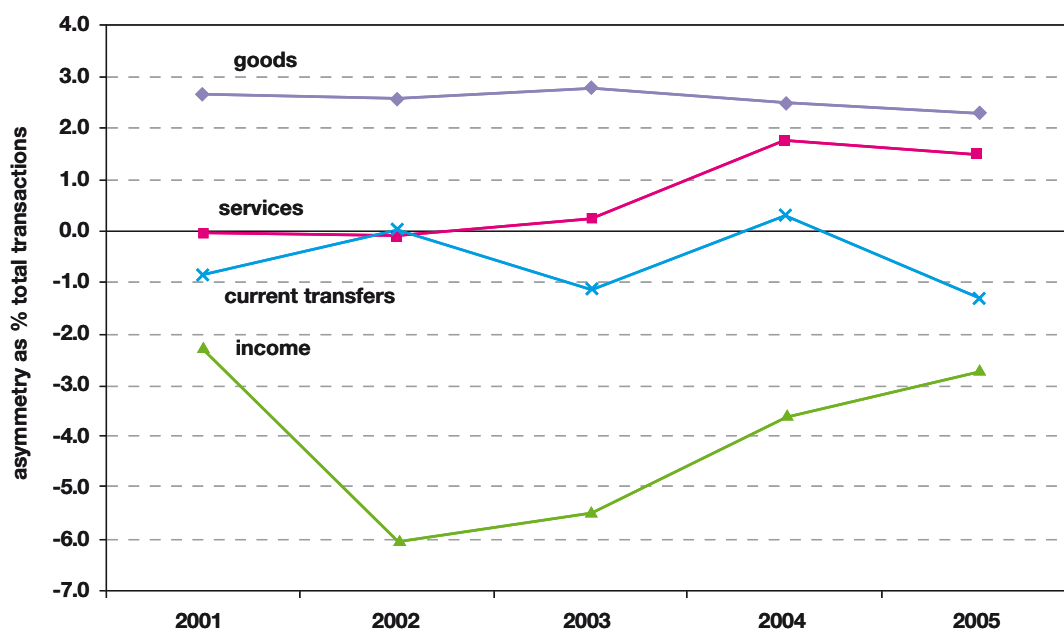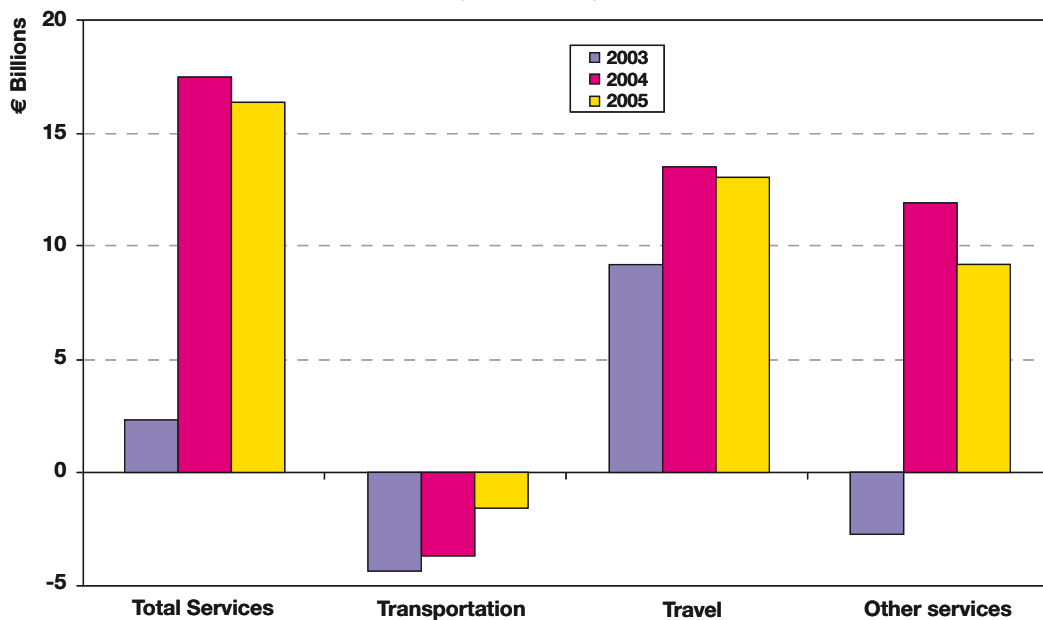

Source: Eurostat

4.   ASYMMETRIES IN EU TRADE IN SERVICES

The analysis of the asymmetries for total services has a high relevance for Eurostat, as the existence of these asymmetries affects to some extent the accuracy and the quality of the aggregated statistics of the Extra-EU International Trade in Services. The growing availability of bilateral data between the 25 Member States over the last few years has allowed Eurostat to carry out a deeper analysis of this issue.

The global Intra-EU25 asymmetries for *total services* in 2004 and 2005 were €17.4 billion and €16.4 billion respectively, much higher than in 2003 (€2.3 billion). However, as observed in previous years, notably in the case of the 2003 and 2002 data, the asymmetries for 2004 and 2005 are likely to be reduced as Member States make further data revisions (for 2003 it was already smaller, falling from €8.2 billion based on the original data provided in 2004 to €2.3 billion after the revisions provided for in 2006).

If the asymmetries within the three main components of total services are compared, the biggest asymmetry was recorded in *travel* (in 2005, reported credits exceeded reported debits by €13.0 billion) followed by the asymmetries recorded in *other services* (€9.2 billion in 2005). With a value of € -1.6 billion, *transport services* recorded the lowest asymmetry.

Chart 3: Asymmetries in total services, transport, travel and other services for EU25

(in billion €)

Source: Eurostat

An analysis at the level of EU Member States has been carried out for the year 2004. Credits of services reported by each country in relation to all other Member States have been compared with the debits reported by all those Member States in relation to the given country. The difference between these two values illustrates the global imbalances for each country in intra-EU trade in services. Chart 4 shows the relative values, where the global imbalances have been presented as a percentage of total transactions (credit + debits).

Chart 4: Intra-EU asymmetries of each Member State[4] (credit side)

(difference between credits reported by a MS in relation to all other MS and debits reported by all other MS in relation to the given MS, presented as % of total transactions)
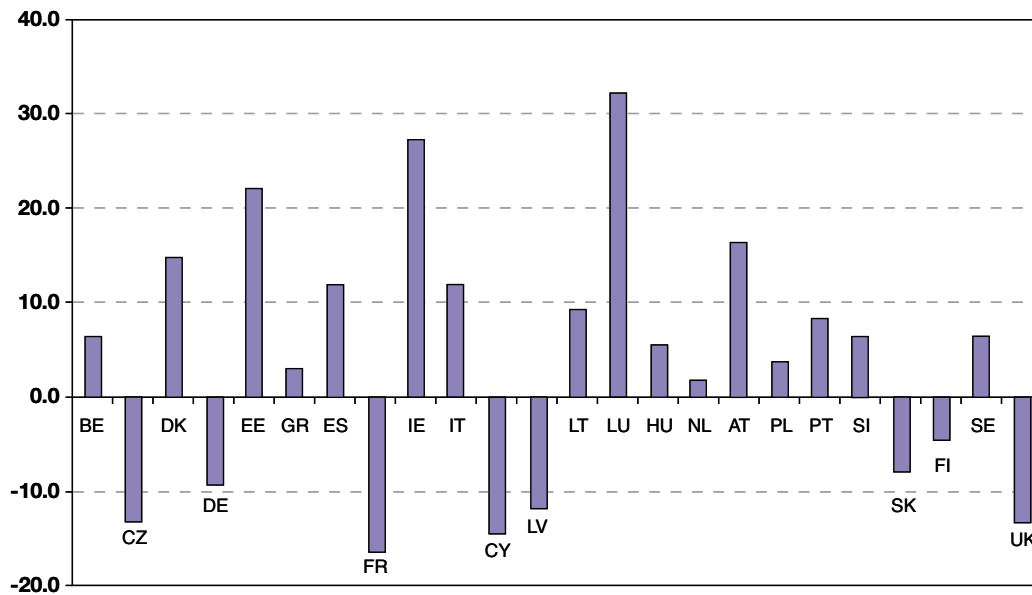
Source: Eurostat

In relative terms, Luxembourg, Ireland and Estonia record the highest positive asymmetries. This means that credits reported by these countries to all other EU MS are much higher than the debits from these countries reported by all other MS. France, Cyprus and the UK, on the other hand, have high negative asymmetries.

On the **debit side**, the debits reported by a Member State and the credits reported by all other Member States are compared. Chart 5 shows the relative asymmetries for each country as a percentage of total transactions (debits + credits).

In the area of services, Austria, Estonia and Spain declare far more imports as compared to exports to these countries declared by all other Member States. In the case of Cyprus, Latvia and the UK the opposite is true.

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4   Data for Malta not available

Chart 5: Intra-EU asymmetries of each Member State[5] (debit side)

(difference between debits declared by a MS in relation to all other MSs and credits reported by all other MS in relation to the given MS, presented as % of total transactions)
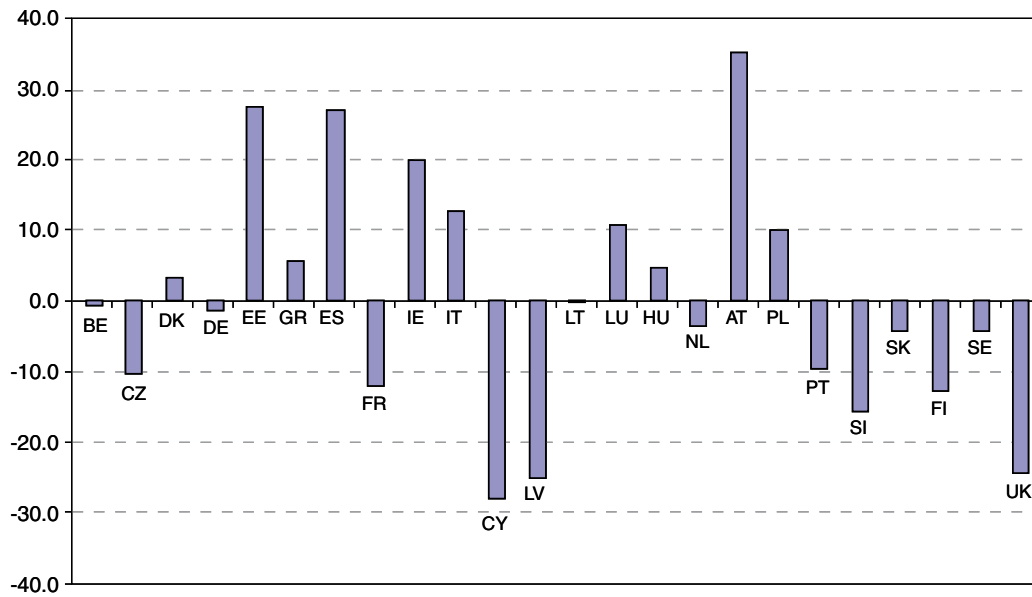
Source: Eurostat

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5   Data for Malta not available

5. POSSIBLE APPROACHES FOR REDUCING ASYMMETRIES

The existence of intra-EU asymmetries in the BoP data reported to Eurostat by Member States means that there is not a single estimate of the EU BoP aggregate for any item. At present, EU BoP is defined as the sum of MS' extra-EU figures, but bilateral comparisons can result in different analyses and interpretations.

Eurostat has always recognised that the problem of asymmetries affects the accuracy of the EU aggregates and, therefore, has initiated several actions to analyse the situation and propose some solutions. Eurostat's Asymmetries Ad-hoc Committee under the co-ordination of the Committee on Monetary, Financial and Balance of payments statistics (CMFB) was created in order to identify, propose and apply adequate solutions for reducing asymmetries. The work covered two broad areas: identifying methodological improvements in each country (bottom-up approach) and resolving the asymmetries at the aggregate level by using modelling tools (top-down approach).

a) Bottom-up approach

This approach consists of bilaterally analysing the differences between the Member States so that the asymmetries can be resolved at the source through agreement on some general rules. Member States try to assess and improve the quality of their balance of payments statistics by conducting bilateral comparisons that may lead to the identification of areas where there is still a need to harmonise concepts, definitions, and compilation methods. In addition, gaps and weaknesses in the different reporting systems may be detected and may contribute to the debate on devising a future European data collection system.

This approach is gradual and requires a significant investment in time and resources. The main advantage is that the results directly affect and improve the quality of national BoP statements. The bottom-up approach (bilateral comparisons) has been conducted at the level of the different specific technical groups (Goods, Travel, Transport, etc.).

b) Top-down approach

With the top-down method, asymmetries are eliminated at aggregated level by a modelling approach. The model developed by the Ad-hoc Committee on Asymmetries, called the BoP Global Method, is based on a probabilistic approach and uses qualitative information. The model is applied to the whole of the balance of payments data and takes into account three asymmetry factors, namely the "geographical" dimension, the "classification" dimension and the "over- or under-estimation of the values". It runs a minimisation function under constraint to estimate the three variables for each item.

The model runs only on aggregated data and produces results for EU aggregates. The adjusted figures, which are the results of the model, do not substitute the official published BoP statistics for each country. For inputs the model uses intra- and extra-EU aggregated data and the outputs are "asymmetry-free" intra-EU and adjusted extra-EU BoP figures.

It should be stressed that a reduction of asymmetries at the national level will only come from a bottom-up approach for each component. Therefore, bilateral investigations and improvements to Member States' methodology should continue. This is essential in order to reduce the scale and bias of the intra-EU asymmetries. Global models are a practical and reasonable basis for deriving asymmetry-free EU BoP figures from MS data provided to Eurostat. Co-operation by all Member States will be needed to address the problem in an efficient way.

6.   CONCLUDING REMARKS

Asymmetries have always existed and will continue to be a feature of bilateral data comparisons. Asymmetries are a global issue and cannot be resolved by a single country. They are a subject of concern for Eurostat, especially as the general finding is that they are increasing both in absolute and in relative terms. While revisions of data for back years reduce the asymmetries, the trend is still one of deterioration.

Eurostat encourages bilateral exchanges of data on balance of payments to the extent possible. Bilateral data should continue to be provided by Member States to allow this type of analysis. Eurostat is ready to provide more detailed tables on the trends in asymmetries for those Member States who expressed their interest in analysing them. Eurostat's Balance of Payments Working Group in its meeting in March 2006 agreed on a "pairs of countries" follow-up procedure for analysing asymmetries in BoP data. Eurostat expressed its interest in steering a reconciliation exercise for one pair of countries each year.

7. REFERENCES

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