1 General overview and stylized facts

1.1 What is a transfer?

All economic exchanges involve transfers. In fast food restaurants, for instance, you will exchange cash for a hamburger. This is a bilateral transfer. It is bilateral because most fast food chains do not give hamburgers for free, nor are you willing to give up hard-earned dollars without being able to bite into a burger. The large majority of economic transfers are bilateral. Nowadays, it is usually goods or services for money, be it dollars, guilders, pounds or yen, or barter trade. This book is not about such transfers.

This is a book about unilateral transfers. It involves money sent to alleviate some of the distress after earthquakes or famines, or money sent to help a friend or relative, etc. In these instances the donating party helps the recipient without getting anything in return, save perhaps the good feeling of helping someone. For that reason it is called unilateral, because you get nothing in exchange for your dollars. Of course, one might also be on the receiving side of a transfer, for example if the state helps you to pay for university, or if you "enjoy" unemployment benefits. It is easy, but admittedly rather boring, to come up with an endless list of examples of unilateral transfers.

We analyze the economic consequences of international unilateral transfers. Why did we not state this more explicitly in the title of our book? Force of habit. For many years prominent economists have discussed "the transfer problem" with reference to international unilateral transfers (Eichengreen 1992).[1] The former is, of course, a more succinct term with a better ring to it than the latter.

[1] Although we will discuss transfers in an international context, the methodology developed can easily be applied to all types of unilateral transfers, such as between economic agents within a single country.

1.2 Definitions

We analyze international unilateral transfers. In principle all such transfers should be recorded in the balance-of-payments statistics. This is by no means straightforward, because the balance-of-payment statistics are based on a bookkeeping system, which requires that an offsetting entry should follow each transaction.[2] In the case of unilateral transfers no offsetting transaction exists. However, the International Monetary Fund (IMF) requires that the balance of payments shows all economic values, including those without a quid pro quo, provided by residents of one country to residents of another country. The IMF publishes on a regular basis data on the balance of payments and makes a distinction between capital and current transfers.

Capital transfers consist of the transfer of ownership of a fixed asset or the forgiveness of a liability by a creditor when no counterpart is received in return. Furthermore, a transfer of cash is a capital transfer if it is linked to, or conditional on, the acquisition or disposal of a fixed asset (for example, an investment grant). A capital transfer should result in a commensurate change in the stock of assets of one or both parties in the transaction. Capital transfers can further be separated into those by the official sector and those by the private sector.

An example of a capital transfer by a government is debt forgiveness. When a government creditor in one country agrees with a debtor in another country to forgive all, or part, of the obligations of the debtor to that creditor, the amount forgiven is the capital transfer. Other capital transfers include investment grants, to finance all or part of the costs of acquiring fixed assets. In this case the recipients are obliged to use investment grants for purposes of (gross) fixed capital formation and are in this sense tied to specific investment projects. Investment grants in kind consist of transfers of transport equipment or machinery, or the direct provision of buildings or other structures such as docks, roads, airfields, hospitals, etc. Taxes are also included, for example inheritance taxes and gift taxes, and also compensation payments for damages such as oil spills and explosions. Examples of capital transfers by those not in the government sector are migrant transfers and debt forgiveness by such people or organizations. In principle, the items distinguished for the government sector can also be distinguished for other sectors.

Current transfers are, not surprisingly, all transfers that are not capital transfers. They directly influence the level of disposable income and

[2] This section is based on the fifth edition of the balance-of-payments manual (International Monetary Fund, 1996).

Table 1.1. *Net unilateral transfers ($ billions)*

	1989		1994	
	Current	Capital	Current	Capital
Australia	0.0	1.9	−0.4	0.6
Canada	−0.8	1.1	−0.3	1.0
France	−7.6	−1.0	−8.3	−4.8
Germany	−16.7	0.1	−37.9	0.7
Italy	−3.5	0.9	−7.1	1.3
Japan	−4.3	n.a.	−7.5	n.a.
Netherlands	−1.9	−0.3	−5.3	−0.9
Sweden	−1.8	−0.3	−1.8	−0.1
United Kingdom	−7.5	n.a.	−8.2	n.a.
United States	−26.3	0.2	−35.2	−0.6

Note: Net transfers are credit minus debit transfers.
Source: International Monetary Fund, *Balance of Payments Statistics Yearbook*, various issues.

influence the consumption of goods and services. As in the case of capital transfers a distinction between government and non-government transfers can be made. Government transfers, in cash or in kind, comprise transfers to finance current expenditures of the receiving government, gifts of food, clothing or medical supplies, gifts of military equipment, the contributions by governments to international organizations or by international organizations to governments, and also fines, penalties and interest on late payment of taxes. Basically the same examples can be given for non-government transfers. Remittances by migrants are also important.

Table 1.1 gives an indication of the size of the different kinds of transfers, as derived from the balance-of-payment statistics. The outflow of unilateral transfers is particularly large in Germany and the United States. Moreover, unilateral capital transfers tend to be smaller than unilateral current transfers.

1.3 An early example of transfers: Alexander the Great

Although transfers are now regular transactions and routinely described in the balance-of-payments statistics, the first sizable "international" transfers were most likely of an involuntary nature, dating far back in history. After losing a war or a battle, a country, region, city or tribe was likely to be forced to pay reparations or be plundered on the spot. That is how it used to be, and in many cases that is how it still is. We will

encounter more examples of reparations payments in the remainder of this chapter, but we will begin with a particularly successful and vivid example: Alexander the Great. Alexander financed his war efforts by taking gold and silver and goods in kind from the many conquered peoples. He gave this to his soldiers directly, or after converting the bullion to coins.[3] Bosworth (1993, pp. 241–2) summarizes this as follows:

> Alexander himself was not greatly concerned with the regular payments of tribute. He relied on periodical influxes of bullion to finance the expenses of his campaigns and drew prodigally upon the accumulated reserves he discovered at Sardes, Damascus, Susa and, above all, Persepolis. Ultimately no less than 180,000 talents were concentrated at Ecbatana, a truly colossal sum which freed him from any budgetary constraints.

To put this wealth in proper perspective, Hammond (1989) writes: "We may recall for comparison that the output of Philip's mines at Philippi alone had been 1,000 talents a year, regarded then as a huge sum" (p. 157). Or, to give some more perspective, when Alexander is campaigning in the east in 331 BC he is accumulating enough reserves to stop a rebellion back home: "He sent to Antipater 3,000 talents, a large sum, with which to buy support and mercenaries" (p. 160). Apparently, this was enough: "Antipater won the ensuing battle near Megalopolis, in which Agis and 5,300 of his army were killed, and obtained the capitulation of the enemy, Sparta providing hostages" (p. 160).

1.4 Transfers and the balance of payments

The history of transfers is long and varied. As the previous section illustrates, early examples were often concerned with battles and wars. These transactions are interesting from an historical point of view but do not contribute much to the understanding of the economic consequences of transfers. The first examples of economic analyses with respect to transfers deal with balance-of-payments problems. In the so-called classical theory of balance-of-payments adjustments, transfers are important because a current account disequilibrium can be seen as a unilateral transfer within a single period, that is a current account surplus or deficit which has to be settled in a future period; see also sections 10.2 and 10.3. The classical theory assumed that capital was more or less immobile and the adjustment had to come from changes in exports and imports accompanied by changes of the terms of trade and movements along given demand and supply curves. Although the language of the classical

[3] Of course, part of the gold and silver given to the soldiers may have been spent in the country of origin, but it was always a transfer between individuals of different nations.

writers can sometimes be confusing to a present day reader the theory can be summed up as follows. Suppose a country has a current account surplus and there is a strict relation between gold reserves and the stock of money. Assuming that the quantity theory of money holds, this surplus causes an increase in prices and therefore reduces the demand for exports; see also Wicksell (1918).[4] In the deficit country the opposite happens. The adjustment of prices gradually eliminates the surplus and the deficit. This theory of balance-of-payments adjustments can easily be stated in terms which are found in the transfer literature and thus gives one of the first theoretical analyses of the transfer problem. The first and most complete statement of this theory is often associated with the name of David Hume.

1.4.1 David Hume

The mechanism equilibrating the balance of payments in the gold exchange standard under normal circumstances originates from the Scottish economist David Hume. His objective was to demonstrate the automatic nature of this so-called price–specie–flow mechanism, that is it did not require the "benefit" of (mercantilist) government intervention (Hume 1985 [1752]):[5]

> Suppose four-fifths of all the money in Great Britain to be annihilated in one night, and the nation reduced to the same condition, with regard to specie, as in the reigns of the Harrys and the Edwards, what would be the consequence? Must not the price of all labor and commodities sink in proportion, and everything be sold as cheap as they were in those ages? What nation could then dispute with us in any foreign market, or pretend to navigate or to sell manufactures at the same price, which to us would afford sufficient profit? In how little time, therefore, must this bring back the money which we had lost, and raise us to the level of all the neighboring nations? Where, after we have arrived, we immediately lose the advantage of the cheapness of labor and commodities; and the farther flowing in of money is stopped by our fullness and repletion.
>
> Again, suppose that all the money in Great Britain were multiplied fivefold in a night, must not the contrary effect follow? Must not all labor and commodities rise to such an exorbitant height, that no neighboring nations could afford to buy from us; while their commodities, on the other hand, became comparatively so

[4] Note the close resemblance of this theory to the monetary approach to the balance of payments, although in the monetary approach the adjustment also comes about by the direct influence of the stock of money on expenditure.

[5] This chapter and the next will be exceptional in their rather frequent use of quotations. We have done so deliberately in this "historical" part to "let the authors speak for themselves." It is useful to keep in mind T. S. Eliot's words: "Someone said: 'The dead writers are remote from us because we know so much more than they did.' Precisely, and they are that which we know."

cheap, that, in spite of all the laws which could be formed, they would run in upon us, and our money flow out; till we fall to a level with foreigners, and lose that great superiority of riches which had laid us under such disadvantages?

Changes in relative prices and their influence on the volume of exports and imports are therefore, according to Hume, the chief driving force behind equilibrating the balance of trade. In addition, and to a limited extent, exchange rate changes within the limits of the gold points serve the same purpose. Thus, according to the price–specie–flow mechanism a unilateral transfer should reduce prices to produce an export surplus. The main purpose of Hume was, however, not to develop a theory of transfers, but to react to what he considered to be gross errors by contemporary writers; that is, the mercantilists. His goal was to show that the mercantilists were wrong when they stated that if England ran a balance-of-payments deficit (or current account deficit) the outflow of gold would drain the entire gold reserves of the country.

1.4.2 Adam Smith

War has been a frequent motivation for transfer payments and it was also the driving force behind the discussion of a transfer problem by the Scottish economist Adam Smith. In this particular instance it was not for reparations payments or indemnities, but for subsidies to Great Britain's allies against France in the Seven Years War (1756–63). Smith (1981 [1776], pp. 441–2) first gives information on the enormous size of the transfer:

The last French war cost Great Britain upwards of ninety millions ... More than two-thirds of this expense was laid out in distant countries; in Germany, Portugal, America, in the ports of the Mediterranean, in the East and West Indies ... Let us suppose, therefore, according to the most exaggerated computation which I remember to have either seen or heard of, that, gold and silver together, it [the circulating gold and silver in Great Britain] amounted to thirty millions. Had the war been carried on, by means of our money, the whole of it must, even according to this computation, have been sent out and returned again at least twice, in a period between six and seven years.

Smith concludes that such a rapid circulation of money was impossible so that payments must have been made in terms of commodities. For this he gives the following explanation (Smith 1981 [1776], p. 443):

The transportation of commodities, when properly suited to the market, is always attended with a considerable profit; whereas that of gold and silver is scarce ever attended with any. When those metals are sent abroad in order to purchase foreign commodities, the merchant's profit arises, not from the purchase, but from the sale of the returns. But when they are sent abroad merely to pay a debt,

Table 1.2. *Britain's foreign trade 1796–1816, compared with unilateral foreign payments (annual averages in £ millions)*

	1793–1805	1796–1805	1806–16
Exports	n.a.	47.3	54.5
Imports	n.a.	53.2	63.0
Trade volume	n.a.	100.6	117.5
Foreign payments	3.0	2.3	10.9
Payments/exports	6.4%[a]	4.9%	20.1%
Payments/imports	5.7%[a]	4.4%	17.4%
Payments/trade volume	3.0%[a]	2.3%	9.3%

Note: [a] Calculated with reference to trade in 1796–1805.
Source: Machlup 1966.

he gets no returns, and consequently no profit. He naturally, therefore, exerts his invention to find out a way of paying his foreign debts, rather by the exportation of commodities than by that of gold and silver.

This explanation of balance-of-payments adjustment is remarkable in that the higher profitability of sending goods rather than specie is inconsistent with Smith's own doctrine of the equality of profit in the employment of different capitals.

1.4.3 The bullionist controversy

The famous bullionist controversy started with the large payments of Great Britain to continental Europe during the Napoleonic wars. Detailed information on Great Britain's balance of payments is lacking, but it seems that these transfers were large relative to exports, but rather small relative to GDP. With respect to the transfer problem (see chapter 2) it is interesting to note that during the period in which the largest payments were made, 1806–16, Britain's terms of trade deteriorated by about 30 percent (Imlah 1958). This debate was one of the first in which large payments to "over-sea countries" gave rise to economic analyses of the issues involved.

On February 27, 1797, Great Britain's war with France had brought a suspension of gold payments by the Bank of England, which was now authorized to refuse payments for its notes in gold to save it from a state of chronic insolvency. Subsequent renewals prolonged the restriction until 1821. At this time Great Britain was involved in heavy remittances to its allies (see tables 1.2 and 1.7), and the government was involved in

large-scale borrowing. Simultaneously, a remarkable series of bad harvests led to large-scale imports of wheat and disturbed the balance of payments. Inconvertibility combined with rising prices resulted in a premium for gold in the market over the quoted mint price. With convertible paper this obviously cannot occur because then the exchange rate between two currencies is determined by the ratio of the gold prices plus or minus the cost of shipping and handling gold.

The "bullionists," among them the English economists Henry Thornton, David Ricardo and John Wheatley, advocated resumption of specie payments by the Bank of England at the earliest possible date. In general the "excessive" issue of irredeemable bank-notes was considered to be responsible for the evil of inflation, although Thornton's analysis following the Hume type of explanation was considerably more cautious in listing the many causes, consequences and symptoms of inflation. Thornton investigated, in particular, a crop failure which necessitated increased imports of grain and arrived at a shift in the terms of trade against the paying country. As will become clear in due course, a crop failure can be analyzed in terms of transfers; see chapter 5. Ricardo (1810) denied that a crop failure or subsidy would disturb the balance of payments at all and questioned any need for a mechanism of adjustment with the peculiar reasoning that it would be a waste of effort to first send specie abroad only to have it returned at a later time:

> The ultimate result then of all this exportation and importation of money, is that one country will have imported one commodity in exchange for another, and the coin and bullion will in both countries have regained their natural level. Is it to be contended that these results would not be foreseen, and the expense and trouble attending these needless operations effectually prevented, in a country where capital is abundant, where every possible economy in trade is practiced, and where competition is pushed to its utmost limits? Is it conceivable that money should be sent abroad for the purpose merely of rendering it dear in this country and cheap in another, and by such means to insure its return to us?

There is no need to comment on the implied omniscience and capabilities of individual agents in abstaining from sending money abroad because it will ultimately return to the country of origin. Suffice it to say that many years later some authors give Ricardo more credit than he probably deserves for claiming that a relative price change is not necessary. As Blaug (1978, p. 219) puts it:

> Oddly enough Ricardo's argument is correct if we assume that he was thinking of the modern Keynesian theory of transfer payments and assumed it to be operative immediately. In other words, if a failure of harvest would immediately and automatically bring about a proportionate change in reciprocal demands of countries for each other's products, no alteration whatever would take place in

the exchanges. On this ground some authors have credited Ricardo with extraordinary prescience ... The whole argument is somewhat forced, and Ricardo would hardly have adopted it had he not been so anxious to attribute the entire "premium on bullion" to an excessive issue of Bank Notes. To improve his presentation by crediting him with a Keynesian theory of transfers seems to miss the point.

Schumpeter (1954, p. 704, n. 13) and Silberling (1924) give similar views. The latter is also useful for a more detailed account of the bullion controversy.

Wheatley (1807) deserves perhaps more credit in this respect for pointing out income effects in addition to price effects by maintaining that crop failures or subsidies would alter the relative demands of two countries and their ability to purchase each other's goods:

If, then, it be correct in theory, that the exports and imports to and from independent states have a reciprocal action on each other, and that the extent of the one is necessarily limited by the extent of the other, it is obvious, that if no demand had subsisted in this country from 1793 to 1797 for corn and naval stores, the countries that furnished the supply would have possessed so much less means of expending on our exports, as an inability to sell would of course have created an equal inability to buy. It is totally irregular, therefore, to infer, that our exports would have amounted to the same sum, had the import of the corn and naval stores been withheld, as those who provided the supply would have been utterly incapable of purchasing them.

In the discussion several elements can be recognized which will later also dominate other debates involving transfers: the influence of transfers on the balance of payments; whether or not balance-of-payments disequilibria would give rise to terms-of-trade changes; and how this could come about. In the bullionist controversy the inconvertibility of paper money for gold resulted in a rise in the price of gold relative to its mint price; the implied depreciation of paper money meant a terms-of-trade depreciation (see, for a related discussion, Taussig [1917, 1918] and Hollander [1918]). As we will see in chapter 2, this debate resembles the famous Keynes–Ohlin debate on the consequences of transfers; both debates failed to put the transfer problem in a general equilibrium context.

1.4.4 John Stuart Mill

The English economist John Stuart Mill, in his authoritative *Principles*, attributes to relative price changes almost sole responsibility for restoring equilibrium in the balance of payments. Only on one occasion does Mill mention a relative shift of income as an equilibrating force; on both

points, see Viner (1955, p. 300). Thus, the conventional wisdom in those days that a transfer of funds from one country to another will worsen the paying country's terms of trade, thereby creating a secondary burden is argued by Mill (1848, book III, ch. XXI, para. 4) as follows (our emphasis):[6]

> The supposed annual remittances being made in commodities, and being exports for which there is to be no return, it is no longer requisite that the imports and exports should pay for one another: on the contrary, there must be an annual excess of exports over imports, equal to the value of the remittance. If, before the country became liable to the annual payment, foreign commerce was in its natural state of equilibrium, it will now be necessary, for the purpose of effecting the remittance, that foreign countries should be induced to take a greater quantity of exports than before: which can only be done by offering those exports on cheaper terms, or, in other words, by paying dearer for foreign commodities. The international values will so adjust themselves that, either by greater exports, or smaller imports, or both, the requisite excess on the side of exports will be brought about; and this excess will become the permanent state. *The result is that a country which makes regular payments to foreign countries, besides losing what it pays, loses also something more, by the less advantageous terms on which it is forced to exchange its productions for foreign commodities*.

The idea that a country which makes a transfer abroad suffers a *secondary burden* because of a deterioration of its terms of trade (that is, the classical theory of transfers) was termed the "orthodox" view by Ohlin (1928a).

1.4.5 Charles Bastable's critique

At first glance, and partly as a result of its eloquent wording, Mill's argument in the previous subsection may sound convincing. The main weakness in the analysis was pointed out most explicitly for the first time by Charles Bastable in 1889. After discussing a few examples, in one of which the two countries engaged in the transfer are not involved in any trade such that there cannot be a secondary burden, Bastable cuts to the heart of the matter (1889, p. 15):

> He [Mill] has, however, omitted an important qualification. B [the recipient], having got 100,000 quarters without cost, is the better able to purchase: her sum of income is higher. It is therefore possible that she may desire to take a greater quantity, – say 200,000 quarters, purchasing 100,000. This increased demand would affect the terms of trade to her [the recipient's] disadvantage, and would so far counteract the loss incurred by A [the donor].

[6] The argument here is for the case of barter trade. Mill goes on to argue that there is no difference if money is introduced or transferred instead.