AN INTRODUCTION TO GENDER AND ECONOMICS: FOUNDATIONS, THEORIES AND POLICIES

CHAPTER 10: ECONOMIC GROWTH AND DEVELOPMENT

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Maria is 73 years old, widow, and lives in Buenos Aires, Argentina. She has been housewife for almost all her life. She has four adult children who regularly visit her in her small house in the suburbs of the metropolis. Her husband was employed as an engineer by a private company, building dams, which took the family to live in various provinces of the country. The household economy of Maria over the past five decades reflects the ups and downs of her country, through dictatorships (1970s), a war (1980s), a debt crisis (1980s) as well as prosperity at European standards (1960s) and a deep financial crisis (2002). When Maria’s children were born, the family lived in nice houses with big gardens in spacious suburbs and they owned a big car. Her husband’s income increased at a good pace annually and was sufficient as a family wage, so she stayed home with the children and made the best empanadas of the neighbourhood for the Sunday family dinner. When the children became adults, Maria and her husband had saved enough money to help each of them to buy a small apartment in the city of Buenos Aires. This support was very much needed because in this period of economic crisis banks did not lend out money for longer than 5 years, which is a too short pay-back period for the average graduate to buy a home. In this period, the 1980s, the country went through a severe economic crisis, which started with the announcement by the government that it was no longer able to pay back the debt it owed to owners of government bonds and to foreign lenders, such as developed country governments, private banks, and the World Bank. The government followed the advise of the IMF and the World Bank and reduced the number of civil servants and other public expenditures. Maria noticed the effects through a lower quality in public services. Moreover, the government privatised state-owned companies, so that Maria now had to pay telecom bills at higher rates than before though with a better service. Unemployment went up, so that her eldest son could not find himself a job for many years and was forced to remain living at home, even though he was in his thirties. Inflation rates were skyrocketing, sometimes various percentages per day, so that doing shoppings became a nightmare for Maria and saving money became irrational. Her husband had bought government bonds some years before, that had now become worthless, so that they ended up without any savings at the end of the decade. In the 1990s, Maria’s husband retired and received a pension from the company he had worked for. When he died, Maria continued to receive the pension, but it was just enough to do her shoppings and satisfy her basic needs. Then in December 2001, the Argentinian economy plunged into a deep financial crisis, in which savings and investments fled the country thanks to the pegged exchange rate of one dollar to one peso. The Minister of Finance and the President of the Central Bank were forced to break with this expensive policy and immediately, the peso dropped in value vis-à-vis the dollar. Maria had no savings anymore, nor bonds, so this time she was not much affected by the crisis directly. But she did suffer from the policies that the government embarked upon in response to the crisis. Again, the government budget had to be reduced drastically, which meant a reduction in services, so that her health care services at the local municipal hospital became less reliant, with long waiting lists, and she war required to pay a higher fee than before for a consult. The ‘cartoneros’ appeared in the streets, poor people who lived from collecting and selling used paper and
carton, and she put the paper outside the house for these people to pick it up. One day, she was asked by a friend to come to a local exchange market where neighbours sell home-made goods and second hand goods for credit points, ‘creditos’, which perform the role of money and allow one to buy something else on that market. She decided to make empanadas and sell them at the market which helped her to finance her haircuts and floor and cooking oil, so that she could still invite her children from time to time on Sundays and treat them a nice Argentinian dish.

This chapter is about the core of macroeconomics: economic growth. In this chapter we will critically review this concept and policy objective by putting it into the context of development, adding unpaid work as an economic sector, and disaggregating macroeconomic variables into male and female variables. We will discuss alternative measures of how well the economy is doing for people and of women’s wellbeing relative to that of men’s. Finally, we will discuss gender-aware macroeconomic policies for economic development.

10.1 Economic Growth

The Growth Equation

The state of the economy is generally measured through the Gross Domestic Product (GDP) of a country, which is the total money value of all goods and services produced in the paid economy in a year. Economic growth is concerned with the increase of GDP over time. This can be measured as total GDP change from one year to another, or as the change in GDP per capita. Economic growth measured per capita corrects for population growth. Suppose that the GDP of Argentina in the year 2010 grows by 1.4 % but population growth is 2.2%, than the wellbeing per individual does not increase but decrease over that year. This can be calculated by subtracting the rate of population growth from the rate of GDP growth. In our example, the growth of GDP per capita in Argentina over the year 2010 is negative, namely 1.4 – 2.2 = - 0.8%.

Whereas GDP is only a measure of the state of an economy, and GDP growth of change over time, the causes underlying economic growth lie in the quantity and productivity of underlying production factors. This is expressed in the economic growth equation which explains the change in GDP over time from a causal relationship with capital, labour and other production factors:

\[ Y = f(K, L, T, HC, SC) \]  \hspace{1cm} (1)

This equation explains economic growth from a particular function (f) of the stock of capital (K), the amount of labour (L), the level of technology embedded in capital (T), the level of education – human capital - embedded in labour (HC), and the extent of social capital, referring to the extent of cooperation and care in a society (SC). Economic growth then is caused by an increase in the stock of these variables and/or their
productivity. The stock increases for example through investment in physical capital or an increase in the female labour force participation rate, whereas the productivity of production factors increases through, for example, higher levels of technology embedded in new stocks of capital (like new computers replacing old ones) and an increasing average level of education of the labour force. The last variable in the growth equation, SC, has been recognized only recently as relevant for explaining economic development. Social capital is an intangible production factor which affects all the other production factors by providing the necessary trust and cooperation between economic agents for optimal investment in production factors. Hence, social capital influences the effectiveness of the other four variables that explain growth. The more cooperation between agents in an economy, through networking, the more access there will be to capital and technology, and the higher average productivity will be. The more care for children there is in a society, the more likely it is that children go to school and are equipped with adequate social and communicative skills that will make their human capital more productive. Hence, the social capital variable can be defined in terms of two underlying variables, namely unpaid consumption (Cu), which includes the caring services children receive at home and in caring situations with other adults, and unpaid investment (Iu), which includes networking. Social capital then can be defined as the sum of unpaid consumption and unpaid investment, by agents for agents in an economy.

\[ SC = Cu + Iu \]  

Similarly, the other variables in the growth equation can be broken down, for example K can be broken down into physical capital, such as machines, and financial capital, such as bonds and shares.

*New Growth Theory and Inequality*

The growth equation (1) presented above is the most extended version of economic growth theory, also referred to as the New Growth Theory. It distinguishes itself in two ways from the old growth theory. First, the New Growth Theory does not only include quantitative aspects for production factors, K and L, but also qualitative aspects of these production factors, through T, HC and SC. In particular social capital is a recently added production factor, around which there is much debate, and which uses terms like ‘oil’ of the economic system, or ‘glue’ of society. What is clear, though, is that countries and regions with higher levels of trust and with more and wider networking between economic agents tend to have higher economic growth than countries and regions that function at lower levels of social capital (Inglehart? references). Second, the New Growth Theory recognizes that the distribution of the production factors over economic agents may affect the rate of growth, in particular in the long run. The more equal the access to resources is, through accessible credit systems, non-discriminatory labour market institutions, and institutions of cooperation around technology and skills transfer, the higher economic growth. This works through a so-called crowding–in effect: the more economic agents have access to resources, the more they contribute to production and the higher will be their level of productivity. Hence, their production and productivity is crowded into the economy rather than being marginalized or excluded by lack of access.
to production factors. Without such access, farmers work marginal lands without fertiliser, women work in subsistence production without the skills and tools to upgrade their businesses, and factory workers produce below their optimal level of productivity due to out-of-date machines and lack of training.

Interestingly, also a more equal distribution of production factors over men and women appears to spur economic growth in the long run. It has been estimated that Africa has lost about one half of its potential per capita GDP growth between 1965 and 1995 due to unequal access to education for girls. Without schooling, the labour productivity of those participating in the labour market remains low, so that the loss in GDP for Africa was caused by sub-optimal labour productivity of female workers (Stefan Klasen, 1998). Moreover, the total impact of gender inequalities in factor markets have been estimated to be 0.1 to 0.3 percentage points loss of GDP growth for the period 2005-2015 (Klasen and Abu-Ghaida, 2004). This is considerable, given the fact that many developing countries have GDP growth rates below 2%, so that the losses attributable to gender inequality are around 10% of actual GDP growth for many countries.

At the same time, however, gender inequality may be good for economic growth in the short run in a different way. This is the case when the reward to production factors owned by women is lower than that of men, while its level of productivity is equal to or at least not proportionally low. So, if women’s level of human capital would be 5% lower than that of men whereas their wages would be 25% lower, this implies that employers benefit from hiring women by reaping an extra 20% human capital without paying for it, as compared with hiring male employees. Such gender discrimination in wages has shown to be responsible for a significant share of economic growth in Asia and other countries that have relied on female-intensive export production since the 1970s (Seguino 2000). Hence, when gender inequality is expressed not so much through limited access to resources, such as education, but in rewards such as wages, gender inequality may contribute to economic growth, but this is only so in the short run. In the long run, the economy as a whole does not benefit from underpayment of one group in society compared to another. This is because this negatively affects its availability – workers may feel discouraged and withdraw from the labour market – or it decreases labour productivity, through constrained motivation.

The impact of gender inequality on economic growth, hence, is ambiguous: in the short run inequality in wages may be good for growth whereas in the long run, inequality in access to resources is likely to be bad for growth. Hence, it depends on the particular context of gender inequality whether it is likely to contribute to or to hamper growth. But whichever direction the relationship takes, gender inequality does affect growth and therefore should be factored into the growth equation. This means that its variables should be distinguished between those for men and those for women. When we view economic growth from a gender perspective, we clearly see that when women have limited access to credit, K and T will remain low in an economy. When women have low labour force participation rates and low levels of education, L and HC will keep down growth because women’s lower labour force participation and education levels keep the size of the labour force unnecessarily small and labour productivity down. Hence, the
distribution of production factors over economic agents matters for growth: when one
group is excluded from access to production factors, human resources remain idle and an
economy will perform at a sub-optimal level. Below is a gender-disaggregated version of
the growth equation, in which the superscripts refer to female (f) and male (m):

\[ Y = f(K^m, K^f, L^m, L^f, T^m, T^f, HC^m, HC^f, SC^m, SC^f) \]  (3)

This can be done by first disaggregating every variable into male and female. This leads
to variable formulations such as \(K^m\) and \(K^f\) for male and female access to capital, and
\(HC^m\) and \(HC^f\) for men’s and women’s school achievements. Second, the differences
between the male and female variables should be taken into account, such as \((K^m - K^f)\) or
\((HC^m - HC^f)\). Growth is then likely to be less the larger are the (gender) differences in
access to resources. Following the law of diminishing marginal returns, as introduced in
the micro part of this book, we can now define the effect of gender inequality in access to
resources (= PF, for production factors) on growth as follows:

If \(PF^m - PF^f < \text{ or } > \text{ than } 0\)  (4)

redistribution towards more equal access between men and women is likely to increase
growth, through a higher net marginal productivity.

Obviously, other inequalities should be taken into account as well, in particular those for
class and ethnicity. This results in quite a complex growth equation, but makes it far
more realistic and recognizes that the distribution of resources over economic agents
matters for growth. The impact of gender discrimination on wages cannot be expressed in
the growth equation, because wages are not a variable appearing in the equation. Gender
discrimination of wages affects growth indirectly, by lowering production costs and
increasing the profit share and hence the resources available for investment in
technology. This will be elaborated in chapter 11.

The Macroeconomic Flow

A very different way to describe the macro economy is through an economic flow chart.
This is a diagram which shows two economic flows: a real flow of production factors,
goods, and services on the one hand and a flow of money that finances the real flows on
the other hand. Note that the arrow at the bottom from households to firms refers to the
financial relationship between households and firms through financial markets.
Household savings (\(Sp\)) are transformed to business investments (\(Ip\)), which in turn
determine the stock of capital (\(K\)) and its level of technology (\(T\)). Households, firms and
the government each work on a different logic. The logic of firms is that of market
exchange for profit, or at least for long run continuity. The logic of the economic role of
the government is that of regulation, based on hierarchy and rules. In this way, the
government sets the rules of the game, but also enforces these rules and provides
solutions for market failures as well as for the case in which markets do operate as they
do but have negative outcomes, such as financial crises or high unemployment. Finally,
the logic of the economic internal role of households is to reproduce human resources through care and cooperation. This is to enable them to survive on a day to day basis and to make and keep them fit for the market, in particular the labour market, and to become responsible citizens to support the economic role of the government, through tax payments and refraining from free riding. Hence, the social capital produced in households spills over through the behaviour of economic agents in the market and as citizens vis-à-vis the state, and thereby becomes the oil of the economic system.

In order to make the macroeconomic flow gender-aware, we integrate unpaid work, caring, and cooperation into the chart through the variables of Yu, Cu, and Iu and draw arrows of this household-created social capital (through care and cooperation but also through the power of social norms such as those on the gender division of labour) to other households, the government and firms. This shows how important the unpaid sector is in the economy as well as the bonds of caring and cooperation within and between households: they generate the ‘social glue’ of the economy, which helps to reduce distrust and facilitates exchange in the market and rule enforcement by the government. Social capital helps to reduce ‘free riding’ such as tax evasion and facilitates trade contacts between strangers, which helps to provide market access to agents who are member of different race/gender/class/geographical groups, leading to crowding in or production and productivity.

**Diagram 10.1: The macroeconomic flow**
10.2 Aggregate Demand and Supply

_Gross Domestic Product_

The Gross Domestic Product (GDP) is the most widely used measure for the wellbeing of countries. GDP is measured as the total value of all paid production in an economy, by firms, the public sector, and individual men and women. In other words, it is the money value of what is being produced through the market and the public sector in a country in a year. GDP equals the value of all wages, profits and rents paid to the production factors involved in the production, which is also referred to as Gross Domestic Income (GDI). GDP is measured for a country as a whole, but this makes it difficult to compare the wellbeing of people living in different countries, due to differences in population size. That is why economists also use a GDP measure that corrects for population size, namely GDP per capita. This divides GDP by the population size and hence gives the wellbeing per head.

GDP is defined by an identity, with on the left hand side Y, the variable for income, or GDP, and on the right hand side the variables that make up this income or show how it is spent: consumption, government expenditures, investments and exports minus imports (= net exports). This macroeconomic equation is also referred to as Aggregate Demand (AD), because it includes all the components of demand in an economy: consumer demand, demand for government services, demand for investment and demand for exports. The variables T (taxes) and Im (imports) have negative signs because the higher the taxes the less money is available for consumers and businesses to spend, and the higher the imports, the more spending on what other countries have produced, contributing to the GDP of other countries. All the other variables in equation (5) have positive signs, because they contribute to total production and express demand for goods and services. See equation (1) below.

\[ Y = C + I + G - T + Ex - Im \]  
\[ Y = \text{the total value of paid production (GDP)} \]
\[ C = \text{paid consumption (food, housing, cars, medicine)} \]
\[ I = \text{paid investment (tractors, computers, buildings)} \]
\[ G = \text{government expenditures (schools, salaries of nurses in public hospitals, business parks, public child care funding, social benefits)} \]
\[ T = \text{taxation (taxes paid by individuals and firms on income, profits and consumption)} \]
\[ Ex = \text{exports} \]
\[ Im = \text{imports} \]

The GDP measure of wellbeing, however, does not include unpaid production, such as housework, care for children and sick family members, and voluntary work. This is all unpaid work that is productive – the unpaid sector of the economy – and contributes to
the wellbeing of the inhabitants of a country, and therefore should be taken into account. When we include the unpaid sector of the economy in measuring wellbeing, we get the following extended macroeconomic equation (6).

\[ Y = Y_p + Y_u = C_p + C_u + I_p + I_u + G - T + Ex - Im \]  

(6)

\( Y \) stands for the total value of paid (\( Y_p \), or GDP) and unpaid (\( Y_u \)) production  
\( C_p \) = paid consumption (food, housing, cars, medicine)  
\( C_u \) = unpaid consumption (vegetables from the garden, care to the elderly)  
\( I_p \) = paid investment (tractors, computers, buildings)  
\( I_u \) = unpaid investment (do-it-yourself home building, child upbringing)  
\( G \) = government expenditures (schools, salaries of nurses in public hospitals, business parks, public child care funding, social benefits)  
\( T \) = taxation (taxes paid by individuals and firms on income, profits and consumption)  
\( Ex \) = the value of exports  
\( Im \) = the value of imports

The extended macroeconomic equation including the unpaid economy provides a more complete picture of the economy and therefore allows the evaluation of policy measures not only in terms of impacts on the paid economy but also on the unpaid economy. For example, if women’s wages rise, it is likely that female labour force participation increases, and hence, women’s income (\( Y_{pf} \)) and consumer expenditures (\( C_{pf} \)). At the same time women’s unpaid work may decrease, because they buy consumer durables to make their unpaid labour productivity higher, or they hire workers to help them with cleaning or childcare, or, alternatively, men increase their share of unpaid work in the household through a redistribution of unpaid work. Without inclusion of the unpaid economy such analysis of impacts of changes in the paid economy on the unpaid economy is not possible. Moreover, it also allows for analysis of impacts the other way around. For example, women’s commitment to household provisioning is likely to function as a back-up for loss in household income, for example in the case of an increase in male unemployment. Hence, women’s increased unpaid production helps to save on household expenditures and prevent livelihoods to decrease too much. In other words the ratio of \( Y_{up}/Y_p \) increases, with a subsequent effect on the ratio of \( C_{up}/C_p \).

**Determinants of Aggregate Demand**

The macroeconomic equation can be further broken down into underlying equations and can also be disaggregated to sex. Here we will present the five most important equations for gender-aware macroeconomic analysis:

\[ C_p + C_u = C \]  

(3)

Total consumption, \( C \), consist of paid consumption, \( C_p \), acquired through the market or the state, and unpaid consumption, \( C_u \), acquired through unpaid production by oneself (such as preparing one’s own dinner) or by someone else (enjoying a meal prepared by your mother). In subsistence economies, such as rural Uganda and rural Pakistan, \( C_u \)
tends to be larger than \( C_p \) due to food production for own use and cloth making. In contrast, in more marketized economies, such as in developed countries and urban economies, \( C_p \) tends to be larger than \( C_u \), because most consumer goods are bought on the market.

\[
C_p = c_p Y_p \tag{4}
\]

\( c_p \) stands for the propensity to consume out of income, which is the proportion of income that is spent on consumer goods, with \( 0 < c_p \leq 1 \).

\[
S_p = s_p Y_p \tag{5}
\]

\( s_p \) stands for the propensity to save, or savings rate, which is the proportion of income that is saved, with \( 0 < s_p \leq 1 \).

\[
c_p + s_p = 1 \tag{6}
\]

this is a definition, because from the two equations and their conditions above, it follows that \( c_p Y_p + s_p Y_p = Y_p \), and hence \( C_p + S_p = Y_p \), so the propensities to consume and save out of paid income equal one. That is because one can only do two things with one’s income: either consume or save.

Generally, when people and countries have high incomes, they save a higher proportion and consume a lower proportion, compared to people and countries with low incomes. This is because when one has only a small income, one cannot afford to save much, since most income is needed to provide the family with a reasonable livelihood. Given the fact that worldwide women’s incomes are less than men’s incomes, women’s propensity to consume then may be higher than men’s propensity to consume (\( c^f > c^m \)) while women’s propensity to save may be lower than that of men (\( s^f < s^m \)). This is, however, not necessarily the case. There may be contexts in which women have a the same savings rate as men or even a higher savings rate, for example when culturally most household spending is financed from the male breadwinner’s income, whereas women’s income is regarded as additional, for extra’s in future that are currently being saved (holidays, children’s education, a bigger house). What also appears to differ between men and women is the ways how they save. Women tend to save more often through informal means, such as informal rotating credit and savings schemes, in which a group of women puts a small amount of money together every week while every time a different group member receives the pot. Or women save in durables, such as jewelry, or they save small amounts of money not through banks or at home but with trusted male relatives, such as brother, to prevent their husbands to use the money for his own interests.

Whether differences in savings rates leads to women having lower or higher levels of consumption or savings than men, depends on the income difference between them, \( Y_p^f \) and \( Y_p^m \). If men and women earn the same amount, than female consumption will be higher than male consumption if the female propensity to consume is higher than that of males. But if women earn only half of what men earn due to lower labour force participation and/or lower wages, than female consumption may be lower than male consumption. A complicating factor is the household: men and women tend to live together, often with children and sometimes with other relatives as well, in households.
Hence, it is an illusion to speak of female consumption or male savings, as if they consume or save only for themselves. In practice, consumption will also be used for other household members, and empirical studies suggest that the proportion spent on household expenditures out of female income is higher than the proportion of household expenditures out of male income (Bruce & Dwyer; Quisumbing; Blumberg).

Government expenditures \((G)\) are a part of \(AD\) because they contribute to demand: they involve the demand for goods, labour and investment, for example through the public educational system, the health care system and road construction. Finally, the role of taxes \((T)\) in the macroeconomic equation does not only generate the necessary resources for \((G)\), but also reduces disposable income of wage earners and those who earn income from capital. This necessitates the formulation of a new variable, namely disposable income \((Y_{pd})\), which is defined as follows:

\[
Y_{pd} = Y_p - T \quad (7)
\]

Hence, consumption actually is not out of \(Y_p\) but out of \(Y_{pd}\), that is, out of the income after taxes have been paid:

\[
C_p = c_p Y_{pd} \quad (8)
\]

**Aggregate Supply and Demand Together**

Aggregate supply \((AS)\) is what firms and the government produce in order to meet demand in an economy. This depends on the price level, as is the case for aggregate demand, but also on the productivity of production. The maximum AS level is what the economy produces at full capacity, hence, without any excess labour in the labour market, but with full employment. Therefore, we can define AS as \(yN\), with is output per labour hour \((Y/N = y)\) multiplied by the number of labour hours \((N)\). But in a diagram with the price level on the y-axes and the level of output on the x-axes, both \(AD\) and AS are defined in terms of \(Y\) and \(p\), the price level. In such a diagram, the \(AD\) curve is downward sloping, because the higher the price level the lower aggregate demand will be. The AS curve, however, has two slopes: a horizontal slope at lower levels of output, indicating that aggregate supply simply follows demand: whatever is demanded will be produced, at the current price level. But when the economy reaches full capacity, supply reaches its limit so that the AS curve becomes nearly vertical: the maximum level of output will be supplied, at any price level, indicating that increased demand will only lead to inflation (a rise in \(p\)) but no expansion of output \((Y)\). Both curves are pictures in figure 10.1 below.

The picture may suggest the idea of macroeconomic equilibrium. But actually, the curves are continuously moving as well as changing slopes, although not dramatically. That is because there is no perfect information and the price expectations and planned investments by firms vary with the available information and the extent of pessimism of consumer confidence and investors’ confidence. Moreover, there is the issue of a time
lack on adjustments between AS and AD: if tomorrow the price of coffee is high and coffee farmers plant more coffee trees, it will take five years before the extra coffee beans can be harvested. Finally there is the issue of sticky prices which comes from long term contracts and social norms about fair wages, as well as collusion between firms, preventing prices to adjust downwards.

Figure 10.1 Aggregate Supply and Aggregate Demand

In figure 10.1 we see three Aggregate Demand functions. AD1 pictures a situation of a relatively low price level (p1) and low level of output (Y1). This characterizes a low income country, or a developed economy in times of an economic downturn. A shift from AD1 to AD2 may be caused by an increase in consumption (C) due to a lower savings rate (more consumer credit opportunities for example), an increase in investment (I) (more business optimism for example), higher government expenditures (G) (extra health care spending in order to meet health targets for example), higher exports (EX) (due to a currency devaluation for example) or a reduction in imports (IM) (due to a currency appreciation for example). At AD2, output increases (Y2), as well as, slightly, the price level (p2). A further shift in aggregate demand to AD3, however, shows a lower increase in output (Y3) at cost of a higher increase in prices (p3): inflation sets in because the economy produces close to full capacity, on the vertical part of the Aggregate Supply curve. This situation depicts an economy running at full speed, such as China with high annual increases in output (around 10% each year), and relatively high levels of inflation, although these may still be acceptable given the high level of employment the economy is providing, leading to a sufficient increase of income among the population.
[exercise with calculations (quantitative) and implications (qualitative)]

Paid and Unpaid Production, Work and Consumption

Estimations of the gender distribution of GDP of countries point out that between 25% and 50% of paid output is produced and earned by women, so that the majority of GDP is actually produced and earned by men. The major reason for this was already discussed above, namely that the measure of GDP does not take unpaid production into account, except for an estimation of what has been labelled ‘unpaid family labour’ in agriculture: women’s agricultural production that is otherwise uncounted because generally only the paid work of husbands or fathers is taken into account in the national statistics. All other unpaid production, such as housework, child care, voluntary community work, or do-it-yourself activities, is excluded from the measure of GDP. That is why we need the variable of total production (Y), which includes paid (Yp) and unpaid (Yu) production in an economy, as we saw earlier.

Another reason why men earn more income than women is that women tend to earn less wages per hour worked, an issue that has been discussed in the labour market chapter. At the same time, estimations for women’s and men’s unpaid work suggest that when we add up all paid and unpaid work, women actually produce more than men, Hence:
\[
Y_{p}^{f} < Y_{p}^{m} \\
Y_{u}^{f} > Y_{u}^{m}
\]

So, both men and women do paid and unpaid work, but men do more paid work and women do more unpaid work, while added up, total hours of work tend to be higher for women, whereas total earnings tend to be higher for men. So, of total production, Y, women do more than men, measured in hours of work. For an illustration of this macroeconomic gender division of labour, see data for various countries in Table 10.1 below.

Table 10.1 Total work burden by gender, various countries and years.
10.3 Alternative Measures for Countries’ Wellbeing

Now that we know of which variables GDP consists, and what it excludes, and what are the sources of GDP growth, let’s take a look at alternative measures of macroeconomic wellbeing. Alternative measures of wellbeing emphasize not the money value of economic activity, but the substantial contribution, or lack thereof, of economic activity to human wellbeing, and in some cases also to nature. This implies that alternative measures of wellbeing include the contribution of unpaid work and caring to human development and that it subtracts environmental damage and health damage as side-effects of agricultural and industrial production. Moreover, the alternative measures that will be discussed here also have gender integrated, taking into account wellbeing gaps between women and men.

**Human Development**

The best known alternative measure to GDP is the Human Development Index (HDI), published annually by the United Nations in its Human Development Reports. The HDI does not measure production but what economic activity – in combination with social and political life – contributes to human wellbeing. HDI consists of three variables: income, through GDP per capita, health, through life expectancy, and educational attainment, through literacy and school enrolment. Like GDP, it excludes unpaid production, environmental degradation, and gender equality. However, the Human Development Report also includes two indices which do measure gender inequality: the Gender-related

![Table 4.2 Total work burden by gender](image)
Development Index (GDI) and the Gender Empowerment Measure (GEM). The GDI takes the HDI as a starting point and then corrects for inequalities between men and women in earned income, life expectancy, literacy, and school enrolment. The GEM is more a political wellbeing indicator, as it combines the female share of managers and professionals in the labour force, the share of female parliamentarians, plus the female share of earned income.

The advantages of using the GDI as a gender-aware wellbeing measure are, first, that the underlying data is widely available for many countries in the world, and published annually, and second, that it is easy to compare it with HDI and GDP per capita. This allows one to evaluate how countries are doing on gender equality relative to their level of GDP per capita or general level of human development. When two countries have a similar GDP per capita but differ in their levels of HDI and GDI, the country with lower attainments in these human development indicators performs less than it could do given its level of GDP per capita. Apparently, income is not spent and invested in way that generates equal levels of wellbeing for men and women. And when a country ranks much lower on its GDI than on its HDI, irrespective of its GDP per capita, human development is distributed very unequally over men and women. This may be due to low female labour force participation, low girls’ school enrolment rates, or violence against girls and women which leads to a shorter life expectancy as compared with male life expectancy.

The GDI measure, as the GEM, has a major weakness in measuring gender inequality. This is because it includes a country’s level of GDP per capita, which is part of the Human development Index from which the GDI is derived. This implies that developed countries will always top country rankings simply because they have much higher levels of GDP per capita, even when some poor countries have better scores on gender equality in health and education and women’s share in earned income. In order to correct for this, we need a gender-aware wellbeing measure that only measures gender differences in wellbeing. One such index is the Global Gender Gap Index (GGGI) which consists of 14 sub-indices on health, education, political representation, and economic participation and opportunity (Hausmann, Tyson and Zahidi, 2008). All these 14 sub-indices only measure differences in wellbeing attainment by men and women. So, countries with small differences will tip the GGGI rankings, which is even possible for countries with low levels of GDP per capita. The opposite is also possible, namely that rich countries perform badly on the GGGI index because they do not transform their wealth into gender equality.

Table 10.2 below compares country rankings on four measures of wellbeing: two measures of gender inequality (GGGI and GDI) and two gender-blind measures, one of human development (HDI) and one of paid production (GDP per capita). For reasons of comparison, the GDP per capita measure is in US dollars at purchasing power parity. This means that income differences between countries have been corrected for what one can actually buy with a dollar. This gives a clearer view of income differences between countries. The top ten countries in the table are the top ten on the Global Gender Gap Index, whereas the bottom ten countries refer to the bottom ten in the GGGI ranking. When we compare the GGGI ranking with the GDI ranking, we see that for some
countries the differences are big. For example, the Philippines rank 6 on the GGGI but 77 on the GDI. This is because the level of GDP per capita in the Philippines is relatively low, and makes part of GDI but not GGGI. Hence, its low ranking on GDI (and on HDI) is largely due to the fact that it is a developing country and has nothing to do with actual inequalities in wellbeing between men and women, which appear to be very low. Indeed, in the Philippines, female labour force participation is high, political representation is relatively strong, with several female presidents over the past two decades, and high girls’ school enrolment rates. In the bottom ten countries, we find many developing countries, but also some countries that have high levels of GDP per capita, either due to oil (Bahrain and Saudi Arabia) or due to their general level of development (Turkey). These three countries score much lower in gender equality than other countries with similar levels of GDP per capita. Finland, New Zealand and Latvia have lower levels of GDP per capita than Bahrain, but score in the top ten of the GGGI, whereas the score of Bahrain is 121. In conclusion, the table shows that gender inequality in wellbeing is not so much a matter of the money value of wellbeing a country achieves but of the choices a country makes on providing opportunities to men and women in economic, social and political life.

Table 10.2 Country comparison of four wellbeing measures

<table>
<thead>
<tr>
<th>Country</th>
<th>GGGI rank</th>
<th>GDI rank</th>
<th>HDI rank</th>
<th>GDP per capita ppp USD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The ten most gender equal countries according to the GGGI rank:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>51,862</td>
</tr>
<tr>
<td>Finland</td>
<td>2</td>
<td>8</td>
<td>12</td>
<td>32,903</td>
</tr>
<tr>
<td>Sweden</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>34,056</td>
</tr>
<tr>
<td>Iceland</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>35,814</td>
</tr>
<tr>
<td>New Zealand</td>
<td>5</td>
<td>18</td>
<td>20</td>
<td>25,260</td>
</tr>
<tr>
<td>Philippines</td>
<td>6</td>
<td>77</td>
<td>102</td>
<td>3,153</td>
</tr>
<tr>
<td>Denmark</td>
<td>7</td>
<td>11</td>
<td>13</td>
<td>35,125</td>
</tr>
<tr>
<td>Ireland</td>
<td>8</td>
<td>15</td>
<td>5</td>
<td>40,823</td>
</tr>
<tr>
<td>Netherlands</td>
<td>9</td>
<td>6</td>
<td>6</td>
<td>36,099</td>
</tr>
<tr>
<td>Latvia</td>
<td>10</td>
<td>44</td>
<td>44</td>
<td>15,389</td>
</tr>
<tr>
<td><strong>The ten least gender equal countries according to the GGGI rank:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bahrain</td>
<td>121</td>
<td>42</td>
<td>32</td>
<td>34,516</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>122</td>
<td>149</td>
<td>169</td>
<td>700</td>
</tr>
<tr>
<td>Turkey</td>
<td>123</td>
<td>79</td>
<td>76</td>
<td>11,535</td>
</tr>
<tr>
<td>Egypt</td>
<td>124</td>
<td>-</td>
<td>116</td>
<td>4,953</td>
</tr>
<tr>
<td>Morocco</td>
<td>125</td>
<td>112</td>
<td>127</td>
<td>3,915</td>
</tr>
<tr>
<td>Benin</td>
<td>126</td>
<td>145</td>
<td>161</td>
<td>1,259</td>
</tr>
<tr>
<td>Pakistan</td>
<td>127</td>
<td>125</td>
<td>139</td>
<td>2,361</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>128</td>
<td>70</td>
<td>55</td>
<td>22,053</td>
</tr>
<tr>
<td>Chad</td>
<td>129</td>
<td>152</td>
<td>170</td>
<td>1,470</td>
</tr>
</tbody>
</table>
Another alternative wellbeing measure emphasizes the fact that economic activity has negative environmental effects, and hence is a measure of sustainable wellbeing. Such a measure of wellbeing is important because capitalist growth tends to have negative environmental effects through fossil energy use, greenhouse gas emissions, non-organic food production, toxic chemicals, waste, and depletion of drinking water, forests and stocks of fish. There exist several sustainability measures, one of which combining environmental and human wellbeing and including a measure of gender inequality: the Wellbeing Index, developed by Robert Prescott-Allen (2001). The Wellbeing Index is an average of two sub-indices, the Human Wellbeing Index and the Ecosystem Wellbeing Index. The Human Wellbeing Index consists of indices on health, population, wealth, knowledge, community and equity. The equity sub-index includes gender inequality which is the average of three variables: the female-male income ratio, the female-male school enrolment ratio and the percentage of women in parliament. The Ecosystem Wellbeing Index consists of indices for land, water, species and genes, and resource use. As will be clear, gender inequality makes only a small part of the total index, so that countries with serious gender inequalities may still score high on the Wellbeing Index. The reason for this is that gender inequality is limited to one sub-index in the Human Wellbeing Index, rather than measuring gender gaps in all variables in the Human Wellbeing Index and the Ecosystem Wellbeing index, as is the logic of the GGGI as we have seen above. Obviously, there may also be gender inequalities in health, community, land-use, water-use, and other resource-use, which are not taken into account.

Finally, next to objective wellbeing measures, looking at human and environmental wellbeing outcomes like earnings, health and resource-use, there are also subjective wellbeing measures. Subjective wellbeing refers to the experience of wellbeing by individuals, not to the objective levels of their wellbeing. For example, two persons with different levels of education and incomes may both state that they are very happy with their lives, whereas a strong difference in stated life satisfaction between two individuals may not necessarily mean that their health or income level is also different. What matters is the individual experience of life satisfaction, or happiness. The best-known subjective measure of wellbeing is the Happiness Index. This index measures wellbeing through questionnaires to which people respond the extent to which they are satisfied with their lives in general and several aspects of their life in particular, such as health or social contacts. The relationship between income and happiness appears to be very weak: at low levels of income, such as in poor countries and for poor people in rich countries, income increases generally lead to more happiness. But at moderate to high levels of income, happiness does no longer increase with more income. This can be attributed to the effect that was discussed in the micro part of the book, namely the status effect, or the ‘keeping-up-with-the-Joneses’ effect: people’s perceived satisfaction with life depends for an
important part on how they do relatively to others. Hence, when others are improving their position at the same pace, relative positions remain unchanged and hence people’s reported happiness does not improve.

Interestingly, in countries where there is more gender equality, people are in general happier, both in developing and developed countries, and this is the case both for women and for men (Chin Hon Foei, nd). For most countries, there is no or almost no difference in happiness between men and women, while for other countries women are either happier or less happy than men. See Table 10.3 below for the top 10 countries where women’s happiness scores higher than men and the bottom 10 countries where women’s happiness scores lower relative to men’s happiness.

### Table 10.3 Ratio of female to male happiness 1990-2000

<table>
<thead>
<tr>
<th>Country</th>
<th>Female/male ratio of happiness: highest scores</th>
<th>Country</th>
<th>Female/male ratio of happiness: lowest scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordan</td>
<td>113</td>
<td>South Africa</td>
<td>99</td>
</tr>
<tr>
<td>Algeria</td>
<td>112</td>
<td>Luxembourg</td>
<td>98</td>
</tr>
<tr>
<td>Turkey</td>
<td>109</td>
<td>Austria</td>
<td>98</td>
</tr>
<tr>
<td>Morocco</td>
<td>108</td>
<td>Greece</td>
<td>98</td>
</tr>
<tr>
<td>Iran</td>
<td>107</td>
<td>Bulgaria</td>
<td>98</td>
</tr>
<tr>
<td>Nigeria</td>
<td>106</td>
<td>Romania</td>
<td>98</td>
</tr>
<tr>
<td>Germany</td>
<td>104</td>
<td>Dominican Rep.</td>
<td>98</td>
</tr>
<tr>
<td>Finland</td>
<td>104</td>
<td>Italy</td>
<td>97</td>
</tr>
<tr>
<td>Ghana</td>
<td>104</td>
<td>El Salvador</td>
<td>97</td>
</tr>
<tr>
<td>Uruguay</td>
<td>103</td>
<td>Portugal</td>
<td>96</td>
</tr>
</tbody>
</table>

Source: World Data Base on Happiness and Chin Hon Foei, n.d., appendix C.

[exercise with the gender-aware wellbeing indicators]

Do We Need Economic Growth?

Now that we know what economic growth is and which (gender-aware) human development and sustainability measures of economic development exist, it is time to ask ourselves why we need growth. This is particularly relevant since much of economic growth is environmentally damaging, and the continuous push to increase labour productivity leads for some workers to stress and a rat race with job insecurity for weaker groups in the labour market. At the same time, growth generally tends to lead to employment growth, increases in incomes, and more and higher quality consumption. It also provides households with the resources to purchase durable consumer goods that help to reduce unpaid work burdens, such as electricity and dishwashers. But the impact of growth on leisure time and quality of care is ambiguous. For some, economic growth
increases work pressure and requires 24 hour availability for work through night shifts and flexible work and for others through permanent availability through cell phone, e-mail, or blackberry. This helps to explain the increase in work-related stress, burn-outs, depression, and in some countries, like Italy and Eastern Europe, a very low number of births because workers do not see how they can combine a job with caring for a child. For others, economic growth makes them loose their jobs which are replaced by technology, without hope for a new job when they are regarded by employers as too old or too costly to re-skill. For these people, growth leads to unemployment rather than leisure time, often with the accompanying feelings of uselessness and failure. Finally, some countries deliberately choose for growth in a trade-off with pollution, at least temporarily, in order to boost the economy – China is a telling example. Policy makers expect to develop and enforce environmental policies later, when relevant technologies will have become cheaper and calls for environmental policy measures stronger. Different countries have different economic structures and these entail different trade-offs between growth and equity and the environment, as well as different opportunities to create conditions for growth that do not undermine equity or aggravates environmental damage.

All macroeconomic policies that countries pursue try directly or indirectly to stimulate economic growth. There are three main reasons why economic growth is so important. The first one is population growth: with a growing population, zero growth would imply a reduction in wellbeing per capita. In other words, economic growth should be at least as high as population growth in order not to experience a decline in economic development per capita. In particular for developing countries, this is an important reason for economic growth, since they have high fertility rates – with some African countries having fertility rates of 5 children per woman – and function at very low levels of GDP per capita. Some European countries experience the problem of an aging population with a high dependency ratio, which is the ratio of people outside the labour force, over the working population. With a large share of elderly people in the population, this implies that an ever shrinking working population (due to low fertility rates) needs to earn the resources for an ever increasing elderly population. Economic growth – and according to some politicians also fertility growth or immigration – then becomes important to keep the dependency ratio from becoming unbearable for the so called sandwich generation, who is caught between caring financially as well as physically for the young as well as the old.

The second reason why we need economic growth is that it helps to reduce conflict over the distribution of economic benefits and gives individuals a sense of progression, even if they do not improve their position relatively to others. If social policy improves the position of a disadvantaged group, economic growth provides the possibility to finance this from an expansion of output, which reduces conflict as compared to redistribution of a fixed amount of output away from other groups. Moreover, individuals and families like to see progress in their economic position over time, as a reward for their investment in schooling, work experience and increased labour productivity. But when neighbours and colleagues also improve their position, this will not change their relative position vis-a-vis others, which is the status effect as we have seen earlier. A way out of such frustration is to see progress relative to one’s own and family position over time, which requires income growth (Friedman, 2005). On the other hand, in countries with a high
rate of luxury consumption, involving much environmental waste and use of resources that are then no longer available to weaker groups – such as privatized nature at cost of publicly accessible beaches and parks – may not so much need more consumer growth but a shift in social values that would help to adjust resources use towards ways that are less wasteful and less marginalizing towards weaker groups in society.

The third reason for growth is the fact that still many people in the world live in poverty – about half of the world’s population survives on less than one dollar a day, according to the World Bank. In the year 2000, countries through the UN, World Bank, IMF and OECD have agreed to halve poverty and to improve health and education and gender equity by the year 2015, but halfway this period several poor countries are not on track to achieve these Millennium Development Goals on time. The objectives appear more difficult to achieve than was initially thought, and the reasons have partly to do with growth and partly with the distribution of income and resources, nationally and internationally. So, although redistribution may alleviate some of this burden, economic growth is necessary to provide the poor with jobs, sufficient food, decent health care, better living conditions and access to education for their children. The economic growth of countries such as Mauritius, Korea, and Chile has shown how important growth is for poverty reduction, although redistribution has played an important role as well, which shows that poverty reduction requires both types of policies: growth and redistribution.

**Growth Strategies**

There are different types of growth, as we have seen in the review of wellbeing indicators: economic development may be more or less contributing to human development, gender equality, sustainability or happiness. Whereas some argue that we can live well without any economic growth when we shift our values away from materialism towards more social and spiritual values, others argue that we need more quality growth: growth that creates sufficient jobs, is not damaging for the environment (‘green growth’) and that generates more equality within and between countries. This concerns the general macroeconomic strategies of countries, or also referred to as growth strategies. We can distinguish broadly between two types of strategies: market-led growth and state-led growth, and many variations and in between these two extremes. Among developed economies, the first type of growth strategy is characteristic for the so called Anglo-Saxon model, followed in particular by the United States and Britain. The second type is more representative of the Rhineland model of northern continental Europe, with countries like Germany, France, the Netherlands and Scandinavia. In the developing world, there is a wider diversity of macroeconomic strategies, of which the most important are: the communist system of a fully planned and state-run economy followed by North Korea and Cuba, with remnants of it still operating in China and Vietnam; the developmental state system followed by the Asian tiger economies such as Taiwan, South Korea, and Singapore; and the neoliberal model followed by a great variety of developing countries, guided by institutions such as the IMF and the World Bank, also referred to as the Washington Consensus. The Washington-Consensus model is very close to the Anglo-Saxon model although with much less state protection of trade, no welfare state,
and a large informal economy. The developmental states of Asia, in turn, compare quite well with how the now developed countries became rich in the period 1950-1980, namely through trade protection, nationalised industries, social welfare development, collective bargaining in the labour market, etc. and resemble the Rhineland model. Of course, many countries follow a mix of macroeconomic strategies. Some are well-integrated in the world economy (following export strategies and having low import barriers), while others largely built on domestic economic development (mainly for countries that are not successful in international trade such as many sub-Saharan African countries, and large countries that have a big enough internal market to guide development such as India).

The state-led growth strategies vary much from each other. But they often entail a concern with pro-poor growth and job-intensive growth, in which employment for the poor is the focus of macroeconomic policies, but which may also have a green dimension. These strategies entail:

1. Education: investment in human resources through an expansion of education. This is not only a social investment and increases the employability of people, it also increases labour productivity, and hence international competitiveness and allows for wage increases.

2. Labour intensive growth: the stimulation of economic sectors that generate relatively many jobs per unit invested, such as higher value added agriculture (like flowers instead of wheat), services (like tourism), and labour intensive manufacturing (like garments and microelectronic assembly instead of steel industry). Various developing countries have successfully followed this strategy, in particular creating many jobs in labour-intensive manufacturing in textile, garments and micro-electronics in South-Asia.

3. Social and green investments: public goods, public work programs, and application of green technology in infrastructure for reasons of justice, environmental protection as well as efficiency. These involve direct job creation in (green) infrastructure, as well as improved health care and social services for disadvantaged groups such as children and the elderly.

Interestingly, all these strategies are also likely to reduce the gender gap in wellbeing, if they are designed and implemented in a gender-aware manner. Below we will explain how explicit attention to gender equality in these policy measures will not only help to reduce the gender gap in wellbeing but also stimulate efficiency, and hence the effectiveness of the pro-poor macroeconomic strategy.

Education and gender equality

The key role of education for economic growth and development is now commonly accepted. For the developed world, this is emphasized through notions of continuous learning, employability and investment in higher education for innovation. For developing countries, it is reflected in two Millennium Development Goals (MDG) for the year 2015: goal two of universal primary education and goal three of equal school enrolment for boys and girls, not only at primary level but also at secondary and tertiary level. As was discussed in section two (?), investment in girls education does not only promote gender equality but also efficiency through an increase in labour productivity.
Labour intensive growth for men and women
The key economic mechanism underlying the economic success of labour intensive growth is that the propensity to consume from wages is generally higher than the propensity to consume from capital income. Hence, when growth is generated through jobs rather than through financial assets or capital intensive industry, earnings will be spent to a larger share (through a high c) than when growth would be capital intensive, because capital income has lower c and higher s than wage income. As we have seen in the first section of this chapter, a similar pattern occurs for female income and male income: women tend to earn less than men and to spend a larger share out of their incomes relative to savings, compared to men. Now, many labour-intensive export industries are female intensive, implying that a majority of workers are women. Hence, a labour intensive growth strategy has a double positive effect on aggregate demand through consumer expenditures. First, it leads to an increase in wage earners because the key production factor used is labour. However, this does not necessarily imply that the labour share of income increases relative to the capital share of income, due to low bargaining power of women workers. An empirical study of OECD countries shows that the higher the female share in the labour force, the lower the wage share of income and the higher the capital share of income (Finnoff and Jayadev, 2005). Second, such female intensive export industries generate more income in the hands of women, who have a higher propensity to consume compared to men. This strategy is particularly successful through exports from low-wage countries to high wage countries where such labour-intensive industries are no longer competitive.

Social and green investments
Social investments have two dimensions. First they provide people with livelihood support feasible for the level of development of the country. Such support varies from social security to a freely accessible basic health care system, and from free primary education to subsidized food in times of crisis. In particular women benefit from these services through their role as providers for the household. Second, social investments are investments in production and productivity by enhancing people’s capabilities. They involve training, health care, reconciliation after conflict, as well as a redistribution of resources such as through land reform and increasing access to resources such as through micro credit. Both types of social investments tend to reduce inequalities, whereas the productive social investments in addition contribute to greater efficiency in the economy. That is because of the law of diminishing marginal returns that was discussed in the micro part of this book. Remember that it implies that shifting resources from resource-rich to resource-poor producers will generate a net gain in output. Evidence shows that expanding primary and secondary education spurs economic growth and that land redistribution increases agricultural production and land productivity. So, when social investments provide women with land titles, access to credit and training, there is double efficiency gain to be reaped.

Next to the provision of public goods, public work projects are also a form of social investment because most of such projects are involved in road maintenance, the (re-)construction of schools and clinics, and services such as cleaning, recycling, and child care. The stronger public works projects substitute for women’s unpaid work, the more
positive the gender effect is: it helps to reduce women’s unpaid work load and provides paid jobs and work experience for women, which in turn contributes to economic growth. When such investments are at the same time green, an additional advantage will be gained, which again has the same two dimensions of a direct increase in (environmental) wellbeing and an increase in production and productivity. First, green investments will reduce pollution or global warming, whereas secondly, they are likely to contribute to more efficient resource use due to lower energy use per unit of output or the use of renewable energy and sources of energy with low or no CO2 emissions. Examples are public investments in wind and solar energy in 2009 and 2010 in Europe after the 2008 financial crisis hit and household solar energy cookers in sub-Saharan Africa to prevent further deforestation and to compensate for the absence of electrification in remote rural areas. In the private sector examples are the development of cars that do not use petrol and the increase in organic food supply.

10.4 Unemployment and inflation

Remember from the microeconomic chapters that markets can be pictured as the interaction between supply and demand. Where the two come together, we speak of market equilibrium, with an equilibrium quantity of a good exchanged at an equilibrium price, the market price. But, also remember from the earlier chapters, that market equilibrium does not necessarily imply market clearing, that is, the dissolving of any excess demand or excess supply. The labour market is typically a market where equilibrium – setting the level of employment and the average wage level – does not take away all excess supply. The remaining excess supply of labour implies that there is unemployment. Moreover, markets are often not in an equilibrium at all, because they constantly respond to changes in conditions, and move towards different supply-and-demand matches on an often erratic path. This is also the case for labour markets. This non-equilibrium and non-market clearing properties of markets in general, and labour markets in particular requires us to distinguish between three types of unemployment: frictional unemployment, structural unemployment, and cyclical unemployment. Frictional unemployment is a small share of unemployment which simply reflects uneven supply-demand matches, because of physical distances, educational mismatches, lack of information, etc. It is the normal level of unemployment in an otherwise well functioning labour market functioning at relatively low levels of unemployment. Structural unemployment is caused by shifts in the structure of an economy. For example, from an agrarian towards a manufacturing economy or a natural resources driven-economy towards a services-based economy. This leaves groups of workers permanently unemployed because they do not have the skills and experience to find work in the newly developing sectors of the economy and cannot compete with those who have been newly trained in those areas. Structural unemployment reflects the fact that labour market adjustments require time and do not occur over night.

The most worrying type of unemployment, however, is cyclical unemployment. As the name already indicates, this comes in cycles, namely the business cycle. This means that unemployment is a feature of business cycles and hence of the normal movement of the
economy. The major macroeconomic cause of unemployment is a general low level of economic activity, also referred to as low capacity utilization, so that not only labour but also other production factors remain under-utilised, such as land, factories, machines, and savings on bank accounts. The crucial factor underlying this bad state of an economy is a lack of aggregate demand. In the first section of this chapter, the macroeconomic equation (6) showed all the components of aggregate demand: consumption, investment government expenditures and net exports (exports minus imports). If one or more of these sources of aggregate demand are low, aggregate demand remains sub-optimal, and GDP also remains relatively low. Consumers may have insufficient purchasing power to demand more goods and services, or they are particularly uncertain about the future and decide to consume less and save more out of their reduced incomes, so that both \( c \) (the propensity to consume out of paid income) and \( C_p \) go down, while \( s \) (the propensity to save out of paid income) goes up and \( S_p \) may go up if the increase in savings outweighs the loss in income. Or consumers may decide to substitute part of their paid consumption \( C_p \), for unpaid consumption, \( C_u \), in order to be still be able to save with lower paid incomes, \( Y_p \). When consumers buy less goods, firms will sell less goods and will therefore reduce their production and buy less inputs, which in turn will reduce the level of employment throughout the economy. This may lead to a vicious circle in which consumers spend even less money, because more households will suffer from unemployment, which further reduces their purchasing power.

Such a vicious circle is the mechanism behind a downturn in the business cycle, which is alternated with ups, or booms, in the business cycle. The business cycle refers to the general movement of the state of the economy through its level of capacity utilization. Economists distinguish between shorter and longer business cycles but disagree a lot on their length – between 5 and 40 years – and their origin. The vicious circle leading to a downturn in the business cycle really gets bad when an economy finds itself in a crisis, leading to additional harm such as factories moving to low wage countries, investors withdrawing their money from whole economic sectors, leaving firms and banks behind in great financial distress, while surplus labour competes for very meagre wages in the informal economy and widespread unemployment contributes to poverty, a waste of human resources, and human distress.

Business cycles are partly caused by events outside the economy, in other words exogenous, such as wars, oils price shocks, technological innovations, and politics. Such events are generally beyond the control of policy makers and hence cannot be influenced. But for a large part the cycle is endogenous, meaning inherent in the economic process itself, through changes in labour supply and demand, shifts in international competitiveness, and high risk taking in lending in case of over-supply of funds on financial markets.

The sex-disaggregated unemployment rate is calculated as the percentage of men or women in the labour force without a job but willing to work, out of the total number of men or women in the labour force. Statistics show that in most countries, the female unemployment rate is higher than the male unemployment rate \( (U^f > U^m) \). At the same time, in most countries the labour force participation rate of women is below that of men,
due to a traditional gender division of labour in the household, leading to a lower labour supply by women compared to men ($Ls^f < Ls^m$).

On the relationship between labour force participation and gender, over time, women’s education increases and the educational gap with men declines, which, together with a change in social norms towards more gender equality, leads to an increase in female labour force participation rate over time. So, with lower numbers of women in the labour force compared to men but higher female unemployment rates, women’s labour market position is weaker than that of men, also because a disproportionate share of women has part-time employment as well as informal jobs, such as domestic workers, child carers, seasonal farm workers, home workers and street sellers.

At the macroeconomic level there are two relationships between gender and labour supply, a long-run relationship and a short-run relationship. These are represented in the following diagram. The first panel shows the long run relationship between GDP and the female labour force participation rate, which is u-shaped. When income is low, both men and women work in order to make a livelihood. With increasing levels of development, the widespread male breadwinner ideal can be put into practice, at least for the middle class and elite, so that an increasing group of women stays home with the children, specialising in unpaid work. But with higher levels of education of women and changing gender norms towards more equality, the female labour force participation rate goes up again. This results in the u-shape which helps to explain why female labour force participation is high in poor countries, low in middle-income countries, and increasing again in high income countries. The second panel pictures a short run relationship between the GDP growth rate and the female labour force participation rate, which has a positive slope. The stronger the decline in GDP, the stronger the added worker effect, resulting in an increase in the female labour force participation rate in bad economic times, at low levels of the business cycle in countries without sufficient social security. In countries that do have social security, such as unemployment benefits, we may rather see the discouraged worker effect in times of high unemployment, leading to a positive slope of the relationship, as shown in panel three. This effect is the withdrawal of those groups from the labour market who have least chance to find a job – often women with lower work experiences and/or education than men, so the relationship is negative. The relatively strong discouraged worker effect for women as compared to men can be explained by the operation of gendered institutions, such as the social norm of a male breadwinner and a female secondary earner, as well as through fiscal measures that benefit breadwinners more than secondary earners in the form of tax credits for the main earner in a household.
Diagram 10.2 Macroeconomic relationships between female labour supply and GDP.

Panel 1. Long run relationship

Panel 2. Short run relationship: added worker effect

Panel 3: Short run relationship: discouraged worker effect
In neoclassical economics, which as we have seen before is a special case in economic theory, the major reason for unemployment is seen to be too high wages. If wages would be lower, more labour would be hired, and hence, unemployment would be lower or even absent. In this view, people without a job are considered to be *voluntarily* unemployed, because if they would accept lower wages they would be able to find work. In the real world, however, many people are willing to work for lower wages but still do not find employment because producers do not want to expand production due to a lack of demand for the extra goods produced. Moreover, if wages would drop too much, this would have a negative effect on domestic purchasing power and a negative effect on worker motivation, hence, on productivity, which would negatively affect a sector’s competitiveness. So, in times of high unemployment wages do generally not fall sufficiently to eliminate all excess labour supply.

Other causes of unemployment recognized in economic theory are microeconomic and will not be discussed in this chapter. They relate to labour market rigidities such as hiring and firing regulations and working time arrangements, lack of affordable child care opportunities, labour force segmentation into typically masculine and feminine jobs, or factors related to low employability of particular groups in the labour force.

*Inflation*

Another macroeconomic problem is inflation. Inflation refers to a decrease of the value of money, which is expressed as increases in the level of prices. Of course, not all prices will increase at the same pace in an economy, so that the consumer price index is a mix of prices of various goods and services. Now, a price seems gender-neutral: whether a consumer is male or female, s/he has to pay the same amount for a bread or a jeans or a kilo of rice isn’t it? Well, it isn’t quite so: men and women do not always pay the same price for the same product so that they will also experience different inflation rates. This is so for two reasons. One reason is various forms of discrimination in markets. Consider small loans in slums in cities in the developing world. Slum dwellers have no access to bank loans because they have no collateral, nor a regular income. The alternatives they have are state supported or NGO provided credit programmes that offer small loans for small scale businesses and individual local money lenders who provide loans against much higher interest rates, to compensate for the high risks of non-repayment they run without having formal ways to claim the money back. Figures from several developing countries now show that men have more access to the low interest rate credit programs than women who have more often no other option than to turn to a commercial money lender. Hence, women pay higher interest for a small loan than men. This is because men more often borrow for their businesses whereas women more often borrow to solve short term liquidity problems in their households; men more often have some collateral such as a house, land, or assets, whereas women often do not have any assets registered on their names; men borrow bigger amounts, whereas the small amounts that women borrow, also often for a shorter period – days instead of months – are easier to get through a money lender than through a credit program with all kinds of fixed rules.

*[insert a clarifying example here!]*
Another reason why women and men do not necessarily experience the same inflation rates is that men and women tend to purchase different goods and services, due to the gender division of expenditure responsibilities in the household and differences in personal expenditures. Men, for example, may spend more money for the household on housing, transport, and education, whereas women may spend more money for the household on food, daily school needs of children and health. For the category of personal expenditures, men may in certain cultures spend more on alcohol and tobacco and eating out, whereas women may spend more on clothing and personal care. Hence, women and men are likely to experience different prices and different inflation rates.

[inset a clarifying example here!]

In general, though, inflation is harmful for both women and men, in particular when the increase in prices does not keep up with wages, which leads to a loss of purchasing power. The compensation of inflation in wages is often less than one hundred percent, and better regulated in formal labour contracts, in particular for unionized workers and public sector workers, as compared to informal labour contracts, the self-employed, and casual workers, who are often disproportionally female.

Technically, inflation is caused by a too high amount of money available in the economy – issued by the Central Bank – in relation to the actual economic activity going round, the real flow of production factors, goods and services. In other words, the Central Bank prints bank notes and gets these through low interest loans to the banking system or through state expenditures, which will bring more money in the economy than is warranted given the level of production. This lowers the value of money. But it is not necessarily the case that the money supply is deliberately too high: the process of economic growth itself requires an increasing money supply and since economic development is not smooth but following booms, sudden opportunities, dead-end roads, and technical breakthroughs, money supply can never be precisely adjusted to the economy’s needs. Hence, some inflation needs to be accepted.

The Central Bank plays a key role also in the prevention of inflation through keeping in check the money supply, but also by providing sufficient money for the economic growth process to continue without unnecessary shortages of loans. Standard anti-inflation policy consists of resisting pressure from the Ministry of Finance who needs money to pay out the salaries of public servants and the army for example, and of keeping the interest rate relatively high so that banks are less willing to borrow from the Central Bank and businesses and households are less interested in bank loans. This results in inflation-targeting by the Central Bank through a higher interest rate. The downside of such inflation targeting is, however, that economic activity is constrained by discouraging investment and consumer loans, which in turn generally has a negative impact on economic activity, consumer demand and hence on employment. Also, the higher interest rate will make government debt more expensive and will discourage government expenditures. Actually, inflation greases the wheel of the economy. Since there is a
relatively strong substitutability between social public expenditures and some services provided by the market on the one hand and women’s unpaid work on the other hand, a reduction of social expenditures and a decline in purchasing power are likely to increase women’s (and sometimes also children’s) burden of unpaid work. In other words, it is the substitutability of Cp and Cu as was already discussed above in reaction at the household level to unemployment. In general, it considered that inflation rates below 2 or 3 percent for developed countries and below 10 or 15 percent in developing countries are not harmful for the economy (Cornia, 2006: 23). When inflation rates are controlled too much employment may suffer, because too strict inflation targeting limits investment and consumption.

The business cycle, economic crises, and market volatility all have their roots in the uncertainty that economic agents, and hence also firms and the government face. The future is unknown, so economic agents act upon expectations and follow rules of thumb as well as rumours, and decide on the basis of imperfect information, limited time to search and calculate all possible options, and their intuition and prevalent social norms. Some choices are part of a range of probabilities, so that a level of risk can be chosen with an accompanying probability of gain and loss. But most economic decisions take place against a background of the more fundamental uncertainty, which has no probabilities attached because nobody knows them. It is as the difference between having the possibility to buy a travel insurance (insurance companies know the probabilities of certain goods being lost or stolen in certain circumstances) and the impossibility to buy an insurance against damage by earthquakes, for which no insurance company has any probability distribution of how often it will happen and where, nor of the likely costs involved. It is this feature of the economy, uncertainty, that makes it difficult to do economic forecasting, economic planning, and designing adequate economic policy. Nevertheless, this is precisely what many economists do and firms and governments want them to do …

The gender dimension here is that risks and uncertainties are born by someone, who pays the costs when they come. For loss of purchasing power, unemployment, poverty, lack of basic services, it is partly women’s unpaid work and caring that plays the role of fallback resource, in the absence of sufficient government programs of social protection. There is a rich literature with empirical evidence on how women’s unpaid work and caring substitutes for loss in wellbeing in markets and the state (Elson; Bakker; others; Beneria). Women will grow food in rural areas when food prices increase, they will spend longer time on doing shopping in urban areas to chase for the cheaper goods, they will take their sick family members to cheaper but lower quality clinics with long waiting lines, and they will produce home-based goods and services to compensate for a loss in public goods and to save on consumer expenditures. In Argentina, for example, this has lead after the December 2001 economic crisis to a whole barter economy parallel to the monetary economy. In this barter economy, called the Red the Trueque, in which simple points or vouchers performed the role of money at local markets for second hand and home-made goods, many households could maintain some basic living standards during the crisis.
10.5 Macroeconomic policy

Macroeconomic policies focus on the aggregate variables of the economy, such as C, T, I, G, Ex and Im, as well as K, T, HC and L. In this chapter we will not discuss those macroeconomic policies that concern the relationship of an economy with other economies, such as through exchange rate policy – this policy will be discussed in chapter 11 on trade. We will also not go into monetary policy, which focuses on the interest rate and other Central Bank policy, which will be dealt with in chapter 12 on money and finance. In this section we will discuss fiscal policy and supply side policy.

Fiscal policy
Fiscal policies can be distinguished in three types: automatic stabilizers, discretionary changes in public expenditures, and tax policy.

Automatic stabilizers
Economies tend to have two automatic stabilisers, one located in the government sector and the other one in the market. The first automatic stabilizer is that of anti-cyclical government expenditures: expenditures automatically increase during a recession due to increasing welfare expenditures (unemployment benefits in developed economies and food subsidies or public work programmes in developing economies). These increases in government expenditures (G) will increase output (Y) through increasing aggregate demand. Hence, GDP will grow again. This automatic stabiliser is often strengthened by extra government expenditures, which is a Keynesian type of macroeconomic policy. John Maynard Keynes argued for this policy after the 1929 crisis, the Great Depression, to help the economy get out of the crisis. The logic is straightforward. The higher G, the higher aggregate demand and hence the more GDP growth. The extra government expenditures are often justified in order to prevent excessive job losses in the private sector, to compensate for a dramatic decline in private sector investment, or to compensate for a significant increase in household savings at cost of their consumer expenditure. The extra government expenditures tend to be given as financial support to firms or as fiscal relief for firms and households, or through infrastructural investments. The second automatic stabilizer is embedded in the negative relationship between wages and profits through market forces of supply and demand. During periods of high unemployment, real wages will fall because of a reduction in the demand for labour and limited bargaining power of trade unions to demand wage increases. Moreover, during periods of high unemployment, the added workers effect kicks in, increasing labour supply, which makes the bargaining power of labour to negotiate higher wages even weaker. The added workers effect refers to the increase in the number of workers, or hours offered for work at the household level, in order to compensate for the loss of jobs and/or income in households. Most added workers are women who were either...
housewives, or doing only part-time work before. As a consequence of the increased labour supply and decreased labour demand, wages may fall. This labour market effect of economic downturns and crises will help to increase the profit share. This is because when the wage costs per unit produced go down, the profit share per unit will go up. This will make more money available for investment, which will improve labour productivity and hence competitiveness. This allows for more sales at lower unit costs, which will increase demand for goods and services domestically and from abroad. This in turn will increase demand for labour and reduce unemployment while wages can increase because labour productivity goes up, and the business cycle goes up again.

The unpaid economy, however, goes against these two automatic stabilisers because in times of crisis, women’s unpaid work and caring will substitute partially for lost purchasing power (Cu increases, Yp and Cp decrease): women will grow food instead of buying it; they will care for sick relatives who cannot afford to seek institutional care; they will make clothing instead of buying it. This implies that although rational at the household level, keeping up living standards during hard times, for the economy as a whole aggregate demand will become lower than it potentially could be without this substitution effect between Cp and Cu. Moreover, this substitution, in particular when combined with the added workers effect in paid work, leads to an increase of women’s workload, whereas unemployment may reduce men’s hours of paid work while traditional gender norms prevent them from taking up unpaid work in households. This results in a widening inequality in the gender division of labour in households in times of recession and crisis: while men’s total hours of work tend to decline, women’s total hours of work tend to increase, both hours of paid work and hours of unpaid work.

**Discretionary changes in public expenditures**

Government expenditures, G, are an important macroeconomic policy variable. They can of course be expanded or contracted. If a balanced budget is the budgetary policy target, G should equal T, so that the government does not need to borrow to finance extra expenditure nor will it be able to save and pay off public debt. The balanced budget equation therefore is:

\[
G - T = 0
\]

When \(G > T\) there will be a budget surplus, but for most countries most of the time there is a budget deficit so that \(G < T\). This is not necessarily a problem because economies tend to grow, hence, the government borrows against future income increases. That is why firms, other governments, investment funds and individuals are willing to lend money to governments: they generally tend to pay back the loans with interest and with a very low risk of default, since the general belief is that a state can never go bankrupt. In practice, however, some states do become unreliable borrowers so that the value of their treasury paper and loans becomes very low and the holders of such government debt will loose money. This is the case for example for Zimbabwe where hyper-inflation, lack of growth, mismanagement of the economy, and corruption have severely lowered the value of government debt. And the 2008 financial crisis that had started in the US but quickly spread to Europe and to some extent also other countries, has almost meant bankruptcy.
for Iceland whose banks fell under too high debt burdens because of too high risk taking and too strong involvement in the global economy, far exceeding the needs for banking services for the Iceland economy itself.

The accumulation of budget deficits over the years results in government debt: the amount of money that the state owes to holders of government debt, such as bonds (treasury paper), credit through financial markets, and loans from international institutions such as the World Bank. Over the years, governments pay off old loans with new loans and in times of sufficient economic growth they even pay off debts with regular tax revenues so that the total value of debt will decrease to prevent too high debt burdens. In order to regulate this, the EU has a regulation that member states that participate in the euro should not have higher debts than 60% of GDP, and run no higher annual budget deficits of 3% of the budget.

Gender Budget Analyses (GBA) have shown that in most developing countries, more money is spent on men compared to women. This is particularly the case for developing countries where less girls than boys attend school, where subsidized fertilizers and pesticides are provided more to male than to female farmers, and where women make far less use of motorized transport, and hence of highways, compared to men. The implication is that \( G^f < G^m \), but since women earn lower incomes than men they also pay less income taxes and profit taxes, which would imply that also they pay less taxes, hence, \( T^f < T^m \) (although not necessarily as a proportion of their incomes). In developed countries, social and health expenditures tend to be higher for women compared to men due to aging: women tend to live around five years longer than men, which results in a higher demand for hospital services, medicine, geriatric help, home care, and other forms of elderly care. Also, more mothers than fathers live as single parents with low incomes, and hence more social support goes to women than men in their role as single parents. So, at least for social expenditures, in developed countries it is likely to be the case that women benefit more from social expenditures than men so that \( G^f > G^m \).

Discretionary fiscal policy can be either expansionary an increase in \( G \), or contractionary a decrease in \( G \). The first will lead to an increase in \( AD \) and hence in output (GDP), whereas a decrease in \( G \) will slow down \( AD \). This last policy measure may seem odd at first sight, because it seems to lead to a reduction in GDP. But it is often combined with supply side policy, which attempts to increase GDP via an expansion of the AS curve rather than through an outshift of the AD curve,

[Insert here a pie diagram with the distribution of public expenditures of a country (Pakistan?), including military and social expenditures and debt service; and one from GBA on spending on men and women]

Tax policy

Tax policy affects total tax revenue (\( T \)) through changes in the tax rate (\( t \)), which affect the total amount of revenues (\( tY = T \)). But there may also be other tax policies such as changes in the tax base (for example introduction of carbon tax) or a shift of taxation from one source to another (like from value added tax toward income tax). The effect of
an increase in $t$ is an increase in tax revenue for the government, which positively affects AD through an increase in $G$. But at the same time, the disposable income of households gets less, because $Y_d = Y-T$, as we have seen before. Hence, consumer spending is likely to be less ($C$), which has a negative effect on AD. Now, it depends on the kind of tax measure and kind of government expenditure which effect is bigger, generally, however, the positive effect of $G$ on AD is larger than the negative effect of $T$ on $C$: hence, the tax multiplier is smaller than the government expenditure multiplier. [add here explanation of multipliers]

Tax policies have gender dimensions as well as environmental dimensions because they affect the prices of what people buy and of their net incomes, and do not always do so in neutral ways. Green taxes would help to reduce negative environmental impacts of economic activity, for example carbon tax and value added eco-taxes to finance the recycling of cars and washing machines. Income taxes may have breadwinner biases, as mentioned before, or tax rates for value added tax for products may differ. Through differences in consumer baskets bought by men and women, such differences in tax rates may also affect men and women’s consumer behaviour differently.

**Supply side policy**

Supply side policies focus on shifting out AS rather than AD and are concerned with stimulating incentives to produce and to invest. They do so by reducing taxes (hence, they involve tax policy of reducing the tax rate, $r$) and removing distortions to free markets, which is also referred to as deregulation. This involves the removal of subsidies, and the abolition of minimum prices (such as minimum wages on the labour market) and maximum prices (such as for food in cities in developing countries), further more they involve a reduction in government expenditures, $G$, and a reduction in the interest rate ($i$). The incentives that are created should lead to an increase in investment ($I$) which is supposed to stimulate the economy stronger (through shifting out AD a response to AS) than $G$ because $I$ is allocated through the market rather than decided by the state, which is regarded as far more efficient. However, a negative side affect of supply side policies is increasing income inequality, not may it lead to job-intensive growth. But a reduction in the tax rate is assumed to actually increase tax revenue because it would crowd on more workers into the labour force and in employment whose net income will not be larger due to lower taxation. So, the tax base will be broadened with a larger number of employed persons in the economy. In practice, however, supply side policy has not been very successful, not in reducing $G$ and expanding $T$ through a lower tax rate, nor in crowding in investment and generating growth. [explain here Laffer curve or make an exercise on it?] This has failed both in developed economies – see the US economy under Ronald Reagan with is record budget deficits, and the situation in many developing countries after debt restructuring through Structural Adjustment Programs (SAPs), the World Bank and IMF based supply side policies.

Since the 1980s, neoliberal policies became the trend, first through Structural Adjustment Programmes (SAPs) and since the end of the 1990s through the Washington Consensus.
Both policy packages have been pushing for more trade liberalization, privatisation of state owned companies in all sectors of the economy, a reduction in government expenditures and less government regulation of the economy. These policies, however, have had mixed results. First, they have not helped to solve the debt problem of poor countries: older debts were simply changed for newer debts, while today various countries spend half their export earnings on debt servicing. That implies that half of their export earnings are paid to foreign lenders, such as the World Bank and developed country governments. Second, SAPs have not helped to reduce poverty: the number of poor in the world has declined, but the share of poor people not, whereas income inequality has risen, both in developed and developing countries. The results for female poverty are mixed, with clear improvements for women where their job opportunities have expanded. But when institutional distortions have not been removed for women, such as a lack of individual property rights and access to credit, and no shift of unpaid work from women to men, women tend to benefit less from deregulation than men. Third, environmental problems have become worse over the period of SAPs and Washington Consensus policies due to the consideration of nature as a free good, so that environmental damage remained unpriced, contributing to pollution, land degradation, and global warming. SAPs have not contributed to preventing such environmental degradation. In conclusion, neoliberal policies have been relatively successful in generating more trade in goods and services and in increasing international capital flows, but these results have not translated to development, poverty reduction and environmental protection.

But also the growth results of SAPs are quite limited, with fast growing countries like China and India achieving high growth rates without following neoliberal policies. Instead, these countries have a strong role of the state in the economy and they strictly control imports and foreign investments (Rodrik, 2007). Whereas countries that have strictly followed SAPs since the 1980s have not benefitted from much growth or even experienced several crises such as Argentina.

Suggested Readings and references:


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*Word count: 15,878*