

## Extended Payroll and Available Extended Payroll: improving the concept and recent comparative development

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Overall Earnings (MSA)<sup>1</sup> is defined as an aggregate that incorporates overall labor income and security benefits and welfare and social programs of the government. It is worth noting that this concept was often mentioned after the escalation of the global financial crisis, in an environment of reduced liquidity, as well as deterioration of expectations and to a lesser extent, the conditions of the labor market, since its dynamics has contributed to sustain the dynamism of domestic demand<sup>2</sup>. Given the relevance of the MSA concept in better understanding the evolution of private consumption, this Box introduces a methodological improvement, expressed in the creation of the concept of Available Extended Payroll (MSAD).

Income from work considered in the Monthly Employment Survey (PME) and the Household Sampling National Survey (PNAD) of the Brazilian Institute of Geography and Statistics (IBGE), used in calculating the MSA, does not exclude discounts corresponding to social security payments and to income tax levying at source, which can reduce its explanatory power, for example, in times of changing tax and/or social security legislation. Therefore, in this sense, the MSAD calculation uses gross income, but excludes the burden of taxes and social security contributions.

$$\text{MSAD} = \text{MRB} - (\text{IR} + \text{CP}) + \text{BPS} + \text{BP};$$

Where  $\text{MRB} = \text{N} \times \text{RMB}$  such that  $\text{MRD} = \text{MRB} - (\text{IR} + \text{CP})$ .

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1/ See Box – Overall Earnings: Concept and Recent Developments, published in the September 2009 Inflation Report.

2/ See Box – Determinants of the Recent Evolution of Private Consumption, published in the September 2009 Inflation Report.

Where:

MRB = Overall gross labor income;

IR = Income tax;

CP = social security contributions;

BPS = social protection benefits;

BP = social security benefits;

N = number of employed personnel in the country;

RMB = average gross income;

It is worth noting that in constructing the MSAD, the methodology adopted in the calculation of the MSA is followed, including additionally the IR component that incorporates the resources from work income<sup>3</sup> withheld at the source, and the quota-adjustment declarations of salaried workers, and the CP component that includes contributions to the General Social Security System (RGPS), to the Civil Servant Social Security (RPSP), and to Closed Entities of Complementary Social Security (pension funds)<sup>4</sup>.

Table 1 shows the real variation of MSAD in the five-year period ending in 2009 and the participation of its components that year. The MRB, indicating the positive trajectory of the labor market, expressed as an increase in the formalization rate and in recurrent real gains, registered an average actual increase of 5.6% in the period, while inflows regarding income tax and social security contributions increased 6.8%. The most pronounced average increase of these inflows, when compared to those registered in MRB, was reflected in the performance of the overall income from available work (MRD), which marked an average growth of 5.4% in the five years ending in 2009. It is worth mentioning that the other MSAD components registered an average real growth of 7.9% in the period, with emphasis on the 18.2% increase in spending on the federal government social protection programs.

The participation of MRB in MSA reached 75.1% in 2009, and of the other components (BPS and BP), 24.9%. The introduction of the concept of availability in the overall income from work and in extended

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3/ Include revenue from social security benefits.

4/ Contributions to the RGPS include individual payments as well as those carried out by companies and entities alike; those targeted to the RPSP include contributions to maintain the military personnel pensions as well as those channeled to the active civil service personnel, retired civil servants and pensioners.

**Table 1 – Available overall real earnings**

Cumulative data

|  | Share<br>2009 | 2005 | 2006 | 2007 | 2008 | 2009 | % variation          |                       |
|--|---------------|------|------|------|------|------|----------------------|-----------------------|
|  |               |      |      |      |      |      | Average<br>2009/2004 | 2010<br>(until March) |
| Gross overall labor earnings (MRB) <sup>1/</sup>           | 100.0         | 5.5  | 6.0  | 5.2  | 7.8  | 3.3  | 5.6                  | 5.7                   |
| Income tax and social security contributions <sup>2/</sup> | 10.2          | 3.7  | 13.9 | 3.7  | 11.1 | 1.5  | 6.8                  | 5.4                   |
| IRRF-labor and IR-wage earner                              | 5.4           | 7.5  | 7.6  | 4.8  | 14.1 | -2.3 | 6.4                  | 4.6                   |
| RGPS contributions   | 3.5           | 13.3 | 16.7 | 9.2  | 6.8  | 6.1  | 10.4                 | 7.1                   |
| RPSP contributions   | 0.8           | 29.2 | 14.1 | 8.0  | 9.7  | 8.2  | 13.8                 | 6.2                   |
| Pension funds contributions                                | 0.5           | 4.4  | 4.0  | 3.8  | 12.5 | 3.1  | 5.6                  | 1.9                   |
| Disposable overall labor earnings (MRD) <sup>3/</sup>      | 73.0          | 5.7  | 5.2  | 5.3  | 7.4  | 3.6  | 5.4                  | 4.4                   |
| Others   | 27.0          | 8.7  | 10.0 | 8.2  | 3.3  | 9.3  | 7.9                  | 10.1                  |
| Social security programs                                   | 3.6           | 25.7 | 21.5 | 15.1 | 9.4  | 19.0 | 18.2                 | 10.4                  |
| Family allowance   | 0.9           | 42.1 | 28.1 | 14.4 | 11.1 | 11.3 | 21.4                 | 19.4                  |
| Benefits of Continuous Support (BPC)                       | 1.2           | 22.2 | 25.2 | 14.1 | 12.0 | 16.5 | 18.0                 | 16.8                  |
| Unemployment insurance and professional qualification      | 1.4           | 18.0 | 13.8 | 16.5 | 5.9  | 26.5 | 16.1                 | -1.4                  |
| Social security benefits                                   | 23.5          | 7.3  | 8.7  | 7.3  | 2.5  | 8.0  | 6.8                  | 10.1                  |
| RGPS   | 16.7          | 9.9  | 9.9  | 7.4  | 1.1  | 7.3  | 7.1                  | 10.0                  |
| RPSP   | 5.1           | 0.5  | 6.2  | 7.9  | 7.4  | 8.6  | 6.1                  | 10.2                  |
| Pension funds  | 1.7           | 2.0  | 4.8  | 4.8  | 2.3  | 13.4 | 5.5                  | 10.9                  |
| Available overall real earnings                            | 100.0         | 6.4  | 6.4  | 6.1  | 6.3  | 5.1  | 6.0                  | 5.9                   |

Sources: IBGE, MDS, RFB, STN, MPS and SPC.

1/ Product of the working population by the effective income in the PME. (adjusted by the effective income in the PNAD).

2/ 2009 participation in the total IRRF and salaried IR: 52.8%; RGPS contributions: 34.4%; RPSP contributions: 8.3%; and Pension funds contributions: 4.5%.

3/ Gross overall labor income less income tax and social security contributions.

payroll, excluding inflows related to income tax and social security contributions changed the ratio between components and the aggregate total, with MRBD representing 73% of MSAD.

**Figure 1 – Available overall real earnings and selected components**

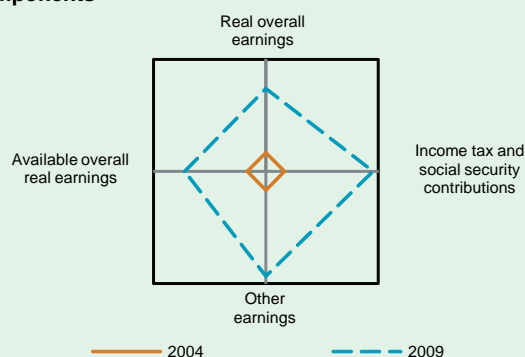
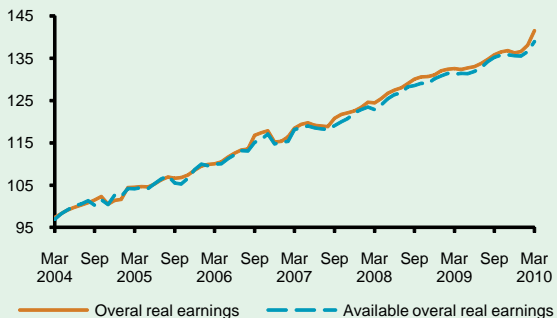


Figure 1 illustrates the development of the payroll concepts covered in this box and the impact of the average real increases indicated in other income and other inflows regarding income tax and social security contributions. In this respect, the diamond, which represents the indices referring to the mentioned variables with base 100 in 2004, becomes asymmetric toward the axis representing income tax and social security contributions and to the one related to other earnings. The real MSA and the real MSAD display uniform standards of development and relatively lower growth in the period.

**Figure 2 – Overall real earnings and available overall real earnings**

Seasonally adjusted data quarterly moving average

2004 = 100



In fact, the trajectories of the real quarterly moving averages MSA and MSAD, shown in Figure 2, show good adhesion, as expected.

In summary, although the general exclusion of IR and CP does not significantly alter the seasonal and cyclical component of the series, the concept of MSAD is quite useful at specific times. In this respect, it complements the MAS explanatory power.