Appendix 3

63 GDP-based Figures: G20 & G7 as a whole system

This List mostly presents those figures of G36, G20, and G7; by group and by country, separately from those tables and, similarly as PART Data in the end of the HEU. Those figures clarify differences of data characteristics by group and by country, 1960-2012, up-dated.

First, the author shows the core of GDP-based figures, selecting crucial items in Families I, II, and III. These figures express a bridge between ‘GDP-based’ data in the literature and the author’s ‘purely endogenous’ data, algebraic and geometrical.

Second, those figures prove new-facts findings in GDP-based data, from Families IV, V, VI, VII, VIII, IX, and X. Those figures are consistent each other wholly with the EES and the HEU, beyond space and time.

Finally and conclusively, the essential new findings are presented in Families XI of debts and XII for the G and PRI sectors. Time series and cross section have been united horizontally and vertically with eternal consistency for 100 years or more, comparing GDP-based deficits with debts.

Readers and economists may modestly deepen these implications by learning by doing; freely from preoccupation and with respective ideas and experiences.

Here is the list of 63 figures by Family and by Item, at a glance:

Fig. P&A-1 by G20: GDP-based of Family I-II-III
Fig. P&A-2 by G20: GDP-based of Family I-II-III
Fig. P&A-3 by G20: GDP-based of Family I-II-III
Fig. Euro-4 by G20: GDP-based of Family I-II-III
Fig. E&EastE-5 by G20: GDP-based of Family I-II-III
Fig. Rest-6 by G20: GDP-based of Family I-II-III

Fig. P&A-7 by G20: GDP-based real Wages
Fig. P&A-8 by G20: GDP-based real Wages
Fig. P&A-9 by G20: GDP-based real Wages
Fig. Euro-10 by G20: GDP-based real Wages
Fig. E&EastE-11 by G20: GDP-based real Wages
Fig. Rest-12 by G20: GDP-based real Wages
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Fig. P&A-13 by G20: GDP-based Wages, ac-en
Fig. P&A-14 by G20: GDP-based Wages, ac-en
Fig. P&A-15 by G20: GDP-based Wages, ac-en
Fig. Euro-16 by G20: GDP-based Wages, ac-en
Fig. E&EastE-17 by G20: GDP-based Wages, ac-en
Fig. Rest-18 by G20: GDP-based Wages, ac-en

Fig. P&A-19 by G20: GDP-based Profits
Fig. P&A-20 by G20: GDP-based Profits
Fig. P&A-21 by G20: GDP-based Profits
Fig. Euro-22 by G20: GDP-based Profits
Fig. E&EastE-23 by G20: GDP-based Profits
Fig. Rest-24 by G20: GDP-based Profits

Fig. P&A-25 by G20: GDP-based Net Investments
Fig. P&A-26 by G20: GDP-based Net Investments
Fig. P&A-27 by G20: GDP-based Net Investments
Fig. Euro-28 by G20: GDP-based Net Investments
Fig. E&EastE-29 by G20: GDP-based Net Investments
Fig. Rest-30 by G20: GDP-based Net Investments

Fig. P&A-31 by G20: GDP-based Taxes
Fig. P&A-32 by G20: GDP-based Taxes
Fig. P&A-33 by G20: GDP-based Taxes
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Fig. P&A-37 by G20: GDP-based Rate of return to capital
Fig. P&A-38 by G20: GDP-based Rate of return to capital
Fig. P&A-39 by G20: GDP-based Rate of return to capital
Fig. Euro-40 by G20: GDP-based Rate of return to capital
Fig. E&EastE-41 by G20: GDP-based Rate of return to capital
Fig. Rest-42 by G20: GDP-based Rate of return to capital

Fig. P&A-43 by G20: GDP-based GDP growth rate and deficit/GDP in Family X
Fig. P&A-44 by G20: GDP-based GDP growth rate and deficit/GDP in Family X
Fig. P&A-45 by G20: GDP-based GDP growth rate and deficit/GDP in Family X
Fig. Euro-46 by G20: GDP-based GDP growth rate and deficit/GDP in Family X
Fig. E&EastE-47 by G20: GDP-based GDP growth rate and deficit/GDP in Family X
Fig. Rest-48 by G36: GDP-based GDP growth rate and deficit/GDP in Family X

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Comparisons:
Fig. 49 Comparison of four core ratios: the US, Japan, China, and Singapore
Fig. 50 Comparison of four core ratios: Euro Area, the UK, Norway, Sweden
Fig. 51 Comparison of the same four countries by core ratio: \( g\text{GDP}=gY, g\text{CPI}, g\text{Wreal} \), and rate of return to capital (1)
Fig. 52 Comparison of the same four countries by core ratio: \( g\text{GDP}=gY, g\text{CPI}, g\text{Wreal} \), and rate of return to capital (2)

Cross Section:
Fig. 53-1 Cross section analysis for 65 countries, 1990-2012, measure-broadly
Fig. 53-2 Cross section analysis for 65 countries, 1990-2012, measure-moderately
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Fig. 54-1 Cross section analysis for 17 Pacific & Asia area and 14 Euro area, 1990-2012, measure-moderately
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Fig. 55 Cross section Debt & Deficit: for G20, 1990-2012, measure-broadly
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Fig. 57-1 Time Series Debt & Deficit: for G7, 1990-2012, measure-broadly
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Fig. 58 Cross section, G20: rate of technology (flow) vs. growth rate of TFP (stock), By the G sector, 1990-2012
Fig. 59 Cross section, G7: rate of technology (flow) vs. growth rate of TFP (stock), By the PRI sector, 1990-2012
Fig. 60 Cross section, G20: Essential connections and combinations among four items, By the G sector, 1990-2012
Fig. 61 Cross section, G20: Essential connections and combinations among four items, By the PRI sector, 1990-2012
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Fig. 63 Cross section, G7: Essential connections and combinations among four items, By the PRI sector, 1990-2012

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Fig. P&A-2 by G20: GDP-based of Family I-II-III
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Fig. E&EastE-5 by G20: GDP-based of Family I-II-III
Fig. Rest-6 by G20: GDP-based of Family I-II-III
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Fig. P&A-8 by G20: GDP-based real Wages
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Fig. Euro-10 by G20: GDP-based real Wages
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Fig. E&EastE-11 by G20: GDP-based real Wages
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**Fig. P&A-13** by G20: GDP-based Wages, ac-en
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Growth rates of wages, ac, en, and ac-en: Australia

Growth rates of wages, ac, en, and ac-en: China

Growth rates of wages, ac, en, and ac-en: India

Fig. P&A-14 by G20: GDP-based Wages, ac-en
Growth rates of wages, ac, en, and ac-en: Indonesia

Growth rates of wages, ac, en, and ac-en: Japan

Growth rates of wages, ac, en, and ac-en: Korea

Fig. P&A-15 by G20: GDP-based Wages, ac-en
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Fig. Euro-16 by G20: GDP-based Wages, ac-en

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Growth rates of wages, ac, en, and ac-en: the UK

Growth rates of wages, ac, en, and ac-en: Russia

Growth rates of wages, ac, en, and ac-en: Turkey

Fig. E&EastE-17 by G20: GDP-based Wages, ac-en
Growth rates of wages, $ac$, en, and $ac$-en:

- **Argentina**
- **Brazil**
- **South Africa**
- **Saudi Arabia**

*Fig. Rest-18 by G20: GDP-based Wages, ac-en*
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**Fig. P&A-19** by G20: GDP-based Profits
Growth rates of Profits; actual, endogenous, and differences: Australia

Growth rates of Profits; actual, endogenous, and differences: China

Growth rates of Profits; actual, endogenous, and differences: India

Fig. P&A-20 by G20: GDP-based Profits
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Growth rates of Profits; actual, endogenous, and differences: Indonesia

Growth rates of Profits; actual, endogenous, and differences: Japan

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Fig. P&A-21 by G20: GDP-based Profits
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Growth rates of Profits; actual, endogenous, and differences: the UK

Growth rates of Profits; actual, endogenous, and differences: Russia

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Fig. E&EastE-23 by G20: GDP-based Profits

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Fig. Rest-24 by G20: GDP-based Profits
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Fig. P&A-25 by G20: GDP-based Net Investments
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Fig. P&A-27 by G20: GDP-based Net Investments
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**Growth rates of Net Investments; actual, endogenous, and differences: E0 Euro Area**

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**Growth rates of Net Investments; actual, endogenous, and differences: France**

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**Growth rates of Net Investments; actual, endogenous, and differences: Germany**

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**Growth rates of Net Investments; actual, endogenous, and differences: Italy**

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**Fig. Euro-28 by G20: GDP-based Net Investments**

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Fig. E&EastE-29 by G20: GDP-based Net Investments
Fig. Rest-30 by G20: GDP-based Net Investments

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Fig. P&A-31 by G20: GDP-based Taxes

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Fig. P&A-32 by G20: GDP-based Taxes
Growth rates of Taxes; actual, endogenous, and differences: Indonesia

Growth rates of Taxes; actual, endogenous, and differences: Japan

Growth rates of Taxes; actual, endogenous, and differences: Korea

Fig. P&A-33 by G20: GDP-based Taxes
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Fig. *Euro-34* by G20: GDP-based Taxes

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Fig. E&EastE-35 by G20: GDP-based Taxes
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Fig. Rest-36 by G20: GDP-based Taxes

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Fig. P&A-37 by G20: GDP-based Rate of return to capital
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Fig. P&A-38 by G20: GDP-based Rate of return to capital
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Fig. P&A-39 by G20: GDP-based Rate of return to capital
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Fig. Rest-42 by G20: GDP-based Rate of return to capital
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Fig. P&A-43 by G20: GDP-based GDP growth rate and Deficit/GDP in Family X
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**Fig. P&A-44** by G20: GDP-based GDP growth rate and Deficit/GDP in Family X
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Fig. P&A-45 by G20: GDP-based GDP growth rate and Deficit/GDP in Family X
Fig. Euro-46 by G20: GDP-based GDP growth rate and Deficit/GDP in Family X
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Fig. 49 Comparison of four core ratios: the US, Japan, China, and Singapore
Fig. 50 Comparison of four core ratios: Euro Area, the UK, Norway, and Sweden
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**Fig. 51** Comparison of the same four countries by core ratio: gGDP=gY, gCPI, gWreal, and rate of return to capital (1)
Fig. 52 Comparison of the same four countries by core ratio: gGDP=gY, gCPI, gWreal, and rate of return to capital (2)
63 GDP-based Figures: G20 & G7 as a whole system

Fig. 53-1 Cross section analysis for 65 countries, 1990-2012, measure-broadly

Fig. 53-2 Cross section analysis for 65 countries, 1990-2012, measure-moderately

Fig. 53-3 Cross section analysis for 65 countries, 1990-2012, measure-narrowly

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**Fig. 54-1** Cross section analysis for 17 Pacific & Asia area and 14 Euro area, 1990-2012, measure-moderately

**Fig. 54-2** Cross section analysis for 15 Europe & East Europe area and 19 Rest area, 1990-2012, measure-moderately
63 GDP-based Figures: G20 & G7 as a whole system

Fig. 55 Cross section Debt & Deficit: for G20, 1990-2012, measure-broadly
Fig. 56 Cross section Debt & Deficit: for G7, 1990-2012, measure-broadly
Deficit, debt, rate of return, cost of capital, and debt by no growth: the US, 1990-2012

Deficit, debt, rate of return, cost of capital, and debt by no growth: Canada, 1990-2012

Deficit, debt, rate of return, cost of capital, and debt by no growth: Japan

Fig. 57-1 Tine Series Debt & Deficit: for G7, 1990-2012, measure-broadly
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Fig. 57-2 Time Series Debt & Deficit: for G7, 1990-2012, measure-broadly
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Fig. 58 Cross section, G20: rate of technology (flow) vs. growth rate of TFP (stock), By the G sector, 1990-2012
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**Fig. 59** Cross section, G7: rate of technology (flow) vs. growth rate of TFP (stock), By the PRI sector, 1990-2012
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![Graph](image)

**Fig. 60** Cross section, G20: Essential connections and combinations among four items, By the G sector, 1990-2012

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Fig. 61 Cross section, G20: Essential connections and combinations among four items, By the PRI sector, 1990-2012
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**Fig. 62** Cross section, G7: Essential connections and combinations among four items, By the G sector, 1990-2012
Fig. 63 Cross section, G7: Essential connections and combinations among four items, By the PRI sector, 1990-2012

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