

DANGEROUS DEFINITIONS

or why the investment community has been fooled by economists - again

by Dr Jim Walker

“The defects of macro-economic theory can be divided into three classes. There is, *first*, formalism, meaning the inappropriate use of concepts outside their original context. *Second*, macro-economics abstracts from essential features of the market economy. *Third*, macro-economics assumes that the algebraic sum of the elements of an aggregate is all that matters: the effects of changes in its composition are irrelevant.”

- David Simpson, **The End of Macro-economics?**, Hobart Paper 126, Institute of Economic Affairs, 1994, p. 10

The debate continues to rage about the sources of growth in the global economy in this cycle. This is especially true in China and other emerging markets where the bull story rests on domestic demand being the main source of growth. This, the argument goes, will guarantee a degree of independence in demand that will at least partly offset weakness in the US and Europe. But therein lies a problem – the direct result of the way that macroeconomic thinking and analysis has evolved over the last seventy years – because there is no easy way of determining *ex ante* what is and what is not domestic demand. The definition itself is easy: “Domestic demand” is the sum of private consumption of goods and services plus public consumption of goods and services plus gross capital formation (ie, fixed capital formation plus inventories). But as David Simpson so clearly states, this definition is defective, from a real understanding perspective, in three ways. For investors it is yet another example of why economists and economic forecasts are so open to ridicule on a regular basis.

Let us contemplate for a second the macroeconomic aggregate concepts underlying the concept of Gross Domestic Product (please forgive the pedagogic nature of this note but the issue is critical). We are all familiar with the National Income Accounting (NIA) identity from Economics 101:

$$Y = C + I + G + X - M$$

Where, Y is national income (GDP), the sum of all goods and services produced by the economy in any one year;

C is private consumption of goods and services;

I is private capital formation (including stockbuilding) ie, investment;

G is government consumption and investment spending;

X is exports of goods and services; and

M is imports of goods and services.

In order to avoid double-counting all of these expenditure components are treated on a value-added basis (which is why Chinese fixed capital formation data differ so greatly from the monthly release of

fixed asset investment. The latter is a gross concept). Moreover, all of them are very neat and compartmentalised. But are they really? The answer is a rather resounding, no.

Let's turn to domestic demand (DD). It is defined as follows:

$$DD = C + I + G$$

Nothing complicated here. The residual component – the difference between domestic demand and GDP – is X-M or, in common parlance, **net exports**. That is the term on which the China bulls concentrate. For all countries, net exports is the residual of its two large component parts, exports minus imports. It is almost identical to the current account balance. It is extremely unusual, if not impossible, for net exports to be greater than C, I or G. Figure 1 shows net exports as a percentage of GDP (all in nominal terms) in 2006 in a selected group of countries. It also shows exports of goods and services as a percentage of GDP, total trade (ie, export plus imports of goods and services) as a percentage of GDP and, as a reference point, goods trade (exports plus imports) as a percentage of GDP.

Figure 1: The importance of external trade in GDP, 2006

Country	Net exports as a % of GDP	Exports g+s as a % of GDP	Total trade g+s as a % of GDP	Total trade in goods as a % of GDP
US	(5.8)	11.1	28.0	21.9
Japan	1.2	16.1	30.9	28.1
EU-13	1.2	40.2	79.2	33.0
China	7.5	n.a.	n.a.	63.5
India	(3.0)	21.2	45.4	31.7
Indonesia	5.4	31.0	56.7	44.3
Korea	1.1	43.2	85.3	79.8
Malaysia	22.3	117.0	211.7	186.9
Philippines	(1.2)	46.4	94.1	84.1
Taiwan	5.7	69.9	134.0	113.5
Thailand	3.5	73.5	143.4	126.2

Source: Haver Analytics

The first thing to note is that for all countries, with the singular exception of Malaysia, net exports is a small percentage of GDP. In other words, on the basis of this fact we could almost always argue that trade does not drive growth. Unfortunately, as commonsense and past experience tells us, this is not so. You will also note that two key components in the China row, national accounting defined exports

and total trade as a percentage of GDP, are missing. That is because Chinese NIA expenditure data are incomplete. All they show is the net export component. At best, a worthless piece of information. On the other hand, total trade in goods, at 63.5% in 2007, is extremely high by large country standards. It is more than double the percentages recorded for the US, Japan, the EU and India. What this suggests is that trade is a very large component of Chinese GDP, even if net trade isn't.

Why is that important? Because, contrary to much of the commentary in Asia, it is **gross exports** that is important in determining whether or not a country is driven by external trade or domestic demand. To understand why we arrive at that conclusion we need to think about the genesis of the concept of domestic demand.

ECONOMIC THEORY AND THE DOMINANCE OF THE US REFERENCE POINT

Classical Economic theory, as espoused by Adam Smith, David Ricardo, James and John Stuart Mill, Frederic Bastiat, Jean Baptiste Say, Richard Cantillon and the Spanish scholastics from the School of Salamanca, was completely dominated by European experience. The Neo-classical School was born of the marginal revolution which took place in the 1870s. It simultaneously appeared in Britain (W S Jevons), France (Leon Walras) and Austria (Carl Menger). Again, the early writings were dominated by European experience and European theorists although the US did throw up the Institutional School under Thorstein Veblen and Wesley Mitchell in the latter part of the nineteenth century. In none of the great economic literature would any reference be found to gross domestic product, national accounts or domestic demand.

That pleasure (and cul-de-sac, because that is what it is and where mainstream economics today is still spinning its prolific yet pointless wheels) awaited the writings of John Maynard Keynes in the 1930s. Although Keynes did not himself introduce the national income identity specified above his disciples went about the job of developing the 'science' of macroeconomics with gusto. But an equally important development at this time was that the theoretical leadership in economics passed from Europe to America. For sure, contributions – mostly of a socialist nature – were still made in Europe (the Cambridge School in England being a major, if unfortunate, standout). But the key writers in economics after the Second World War were Americans – Samuelson, Solow, Arrow, et al. In short, the testing ground for macroeconomic analysis tended to be the United States. It had better data than elsewhere, it was the dominant economy and it had leadership in economic research (from econometrics to rational expectations to macroeconomics generally).

This little history lesson is important because it helps us understand how the fallacy of domestic demand measurement in an NIA setting has grown up. Look back at Figure 1. The country with the smallest exposure to international trade is the United States. The net export deficit in 2006 was relatively high (higher than it had ever been in the past by the way) at 5.8% but the export to GDP and total trade to GDP ratios are a fraction of those in the other countries in the table (except relatively closed Japan). Even India looks like an open economy relative to the US.

Most aggregate demand theory, not to mention National Income Accounting practice, has been centred on US experience. In a relatively closed economy like the US it is legitimate to talk about

domestic demand as a distinct component of GDP. In short, most consumption in the US and most investment in the US is **not** dependent on external trade. Making the same assumption for other economies is much more heroic and much more erroneous.

Let me reiterate the second and third points made by David Simpson:

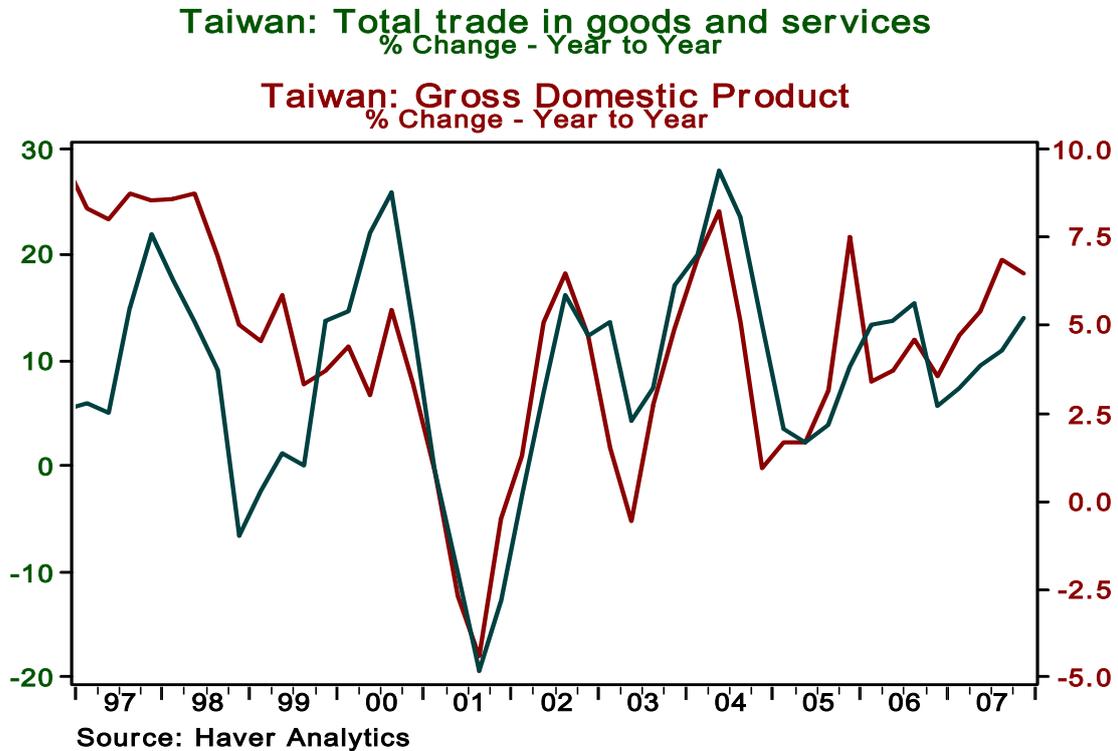
“Second, macro-economics abstracts from essential features of the market economy. Third, macro-economics assumes that the algebraic sum of the elements of an aggregate is all that matters: the effects of changes in its composition are irrelevant.”

The essential feature of Asian economies, including China, is that they are dominated by external trade. It is therefore **wrong** to assume that two of the key components of domestic demand, private consumption and gross capital formation, are independent of trade. The direct employment in export industries in the Pearl River Delta might only be 5-7 million people but that does not include the indirect labour in trade construction work (highways, ports and airports), logistics (trucking, railways, container handling, freight servicing) and in the higher-order capital goods industries that supply exporters. Then there are the second and third round multiplier effects of these workers’ wages on domestic service and goods industries. Moreover, it does not include the investment expenditure on trade-related activities such as ports, highways, shipbuilding, truck manufacture, machinery and equipment manufacturing, cement, steel and so on and so on right the way through the supply chain. In short, the greater the size of total trade as a percentage of GDP the greater are the interlinkages between trade activities and the rest of the economy. No amount of macroeconomic aggregation can discern the connections and dependencies in the economy. Quite the reverse. What we really need to know are the multiplier effects of a drop in export demand to the rest of the Chinese economy. This is an impossible ask at this juncture.

WHAT TO EXPECT FROM A TRADE DOWNTURN

So, what is likely to happen to China’s GDP growth when there is a downturn in external demand? The best answer would be to look at the experience of other Asian economies in the light of the 2001 US mini-recession. There is, however, a measurement problem with doing so. Most of the region was just pulling out of the Asian Crisis by the early 2000s. Moreover, given currency declines, they were also highly competitive even as global demand swooned. That is, with one exception – Taiwan. Taiwan escaped the worst of the crisis. Nominal GDP growth did fall towards zero in 1998 (Figure 2) but it did not turn significantly negative. That experience had to await the trade shock of 2001. As the chart shows, nominal GDP in 2001 fell by almost 5% YoY in one quarter and was negative for the year as a whole. A slight downturn in the US and global economies produced an extreme reaction in Taiwanese growth. Why? Because the external sector had so many interlinkages back into the domestic Taiwanese economy. When exports fell nominal private consumption growth dropped from 5.7% in 2000 to 0.7% in 2001. Likewise, gross fixed capital formation went from 7.4% growth to -20%. So called “domestic demand” wasn’t domestic at all.

Figure 2: The correlation between trade and growth in an open economy



In open economies where total trade flows are over 50% of GDP – and that is most certainly the case in China – there is no way of measuring domestic demand *ex ante*. The definition of domestic demand provided us by macroeconomic aggregates hides more than it reveals because it “abstracts from the essential features” ie, the microeconomic connections of exports and imports with consumption and investment spending. Moreover, in economies where prices have been distorted in order to promote export industries (export tax rebates, currency undervaluation) the microeconomic connections are likely to be greater than they otherwise would be. Unfortunately, that means that the extent of a trade-led downturn is likely to be magnified. The only cold comfort for China is that countries like Malaysia, Taiwan and Thailand are likely to be hit even harder by the coming global recession.

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