

The Global Purchasing Managers' Index

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Economic policy-makers need high quality, timely, internationally compatible economic data, for obvious reasons. But the information actually available to guide policy decisions rarely has any of these characteristics. Data are often of poor quality, often published months after the period to which they refer, are often revised after first publication and are not at all compatible internationally. However, from September 2002 the launch of a new monthly economic survey for Japan—the Purchasing Managers' Index (PMI)—will mean that highly reliable and rapidly-produced economic data, compiled using a standardised methodology to ensure international comparability, will be available for all G8 nations for the very first time. Similar data will also be available for a host of other countries.

Furthermore, as from September 2002 the various national PMI surveys will be combined together to produce the first truly harmonised series of global economic indicators, tracking a diverse range of variables that include

global output, order books, employment and prices.

Economic data deficiencies

A lack of reliable and up to date economic data can be identified as a key cause of misallocations of resources, particularly investment flows, as well as errors in economic policy. One good example comes from the failings of UK economic and monetary policy in the 1980s, which were blamed on gross domestic product (GDP) data that the UK finance minister at the time later described as “a work of fiction”.¹ The economic crises such as those seen in Russia and Asia in the late 1990s and the more recent crisis in Argentina are unlikely to have been avoided merely by the availability of economic data of higher quality than that published at the time. Nevertheless, the provision of accurate, comprehensive and timely economic data to policy decision-makers in these countries and lenders to these governments would arguably have helped alleviate the financial

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¹ Nigel Lawson (1992) *The View from Number 11*.

Purchasing Managers' Indexes

The PMI Indexes are derived from continuous monthly surveys of business conditions and track what is actually happening at individual company level. They are not concerned with opinion about what is or may be happening, or with forecasts of what may or may not emerge. They are based on carefully selected panels of executives in companies who report each month on real events. Sophisticated panel selection, weighting and seasonal adjustment techniques are used to ensure accurate anticipation of official data.

The PMIs cover manufacturing, construction and service sector activity, representing the vast majority of all private sector economic activity. The data cover a wide array of business activity, monitoring output, new business, employment, input and output prices, exports and a number of other measures. Survey responses reflect the change, if any, in the current month compared to the previous month based on data collected mid-month. The individual responses are converted into diffusion indexes, which have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change. An index reading above 50.0 indicates an overall increase in that variable, below 50.0 an overall decrease. The greater the divergence from 50.0, the greater the rate of change signalled.

crises by facilitating the appropriate pre-emptive management of monetary and fiscal policy.

The principal deficiencies of economic data can be identified as follows:

- **Poor quality.** Faults in basic methodologies, compilation procedures and data collection systems are frequently highlighted even in the most developed countries. In the developing world, quality can be very poor indeed.
- **Delays in publication and infrequent publication.** A significant period of time often elapses before data are actually published. For instance, Eurozone quarterly

national accounts data are produced with a delay of 60–70 days. A 90-day period usually elapses before the national accounts main aggregates are broken down by sector.² National accounts data, from which the most comprehensive and important measure of economic activity—GDP—is derived, are also published only quarterly.

- **Poor coverage, and notably a bias towards manufacturing industry.** Many monthly economic series are available, but these data tend to focus on manufacturing. For the service

² Source: ECB (2000) "Statistical requirements of the European Central Bank in the field of general economic statistics." August.

sector, in contrast, barely any official economic data series are released, especially on a monthly basis.

- **Subject to revision after first publication.** Even once the official data are published, they are frequently subject to substantial revision.
- **Lack of comparability with equivalent measures used for other countries.** A further problem associated with official data is that not all national statistical bodies compile data using the same methodologies. Gross domestic product data, for example, are commonly compiled using incompatible methodologies, coverage definitions and data collection systems. Accurate international comparisons of such data are therefore difficult, if not impossible, to achieve.

When attempting to compile global economic data, the process of simply aggregating the national economic data clearly carries the same deficiencies as those inherent in the constituent national data. Such global economic indicators are published by organizations such as the OECD and IMF and a host of investment banks, and their value as timely and reliable economic indicators is much reduced by the problems associated with the national data.

Using survey data to anticipate official data

A solution to the deficiencies of official data is to use survey data to provide a reliable advance indication of trends in

Table 1: Countries for which PMI surveys exist

Australia	Italy
Austria	Japan*
Canada	Netherlands
Czech Republic	Poland
Denmark	Russia
France	Singapore
Germany	South Africa
Greece	Spain
Hong Kong	Sweden
Hungary	Switzerland
Ireland	United Kingdom
Israel	United States

* Survey soon to be launched.

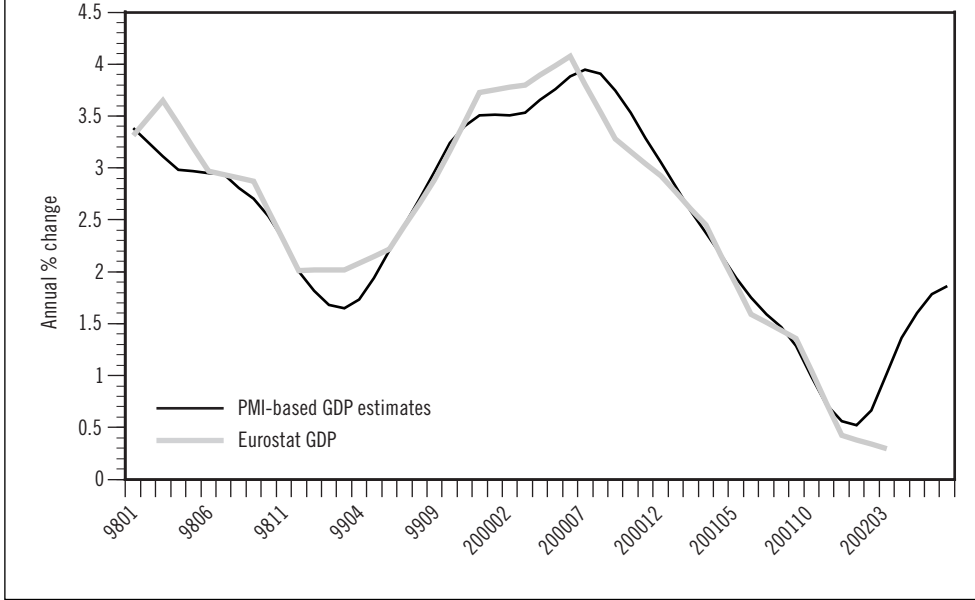
official series such as GDP. One set of surveys is the Purchasing Managers' Index (PMI) series, for which surveys are now produced for all G8 nations as well as many other economies (see Table 1).

The PMI surveys have become highly regarded by analysts in investment banks and central banks as reliable advance indicators of subsequently published official data. In the UK, the PMI survey data have in fact been shown to provide a more reliable guide to true economic growth rates than official first estimates of GDP—the latter tending to be revised numerous times following initial publication.³ Figure 1 (overleaf) shows estimates of GDP growth from the Eurozone PMI data, tracked against official data, and illustrates the close correlation between the two.

However, not only do the PMI data accurately anticipate official data, the

³ See <http://www.ntc-research.com/gdp>

Figure 1: Eurozone PMI-based indicator of GDP versus Eurostat GDP data



PMIs overcome all of the deficiencies in official data outlined above. First, the PMI data are produced monthly and rapidly (released right at the start of each month with data relating to the month just passed). Second, the PMIs cover services and construction as well as manufacturing, typically encompassing around 85% of private-sector economic activity in a developed economy. Third, the surveys are published very rapidly, released right at the start of each month with data relating to the month just passed. Fourth, the data are never revised after initial publication.⁴

⁴ In some cases, re-estimation of seasonal factors may lead to minor revision to the seasonally adjusted series, but no raw data from the survey are ever revised after first publication.

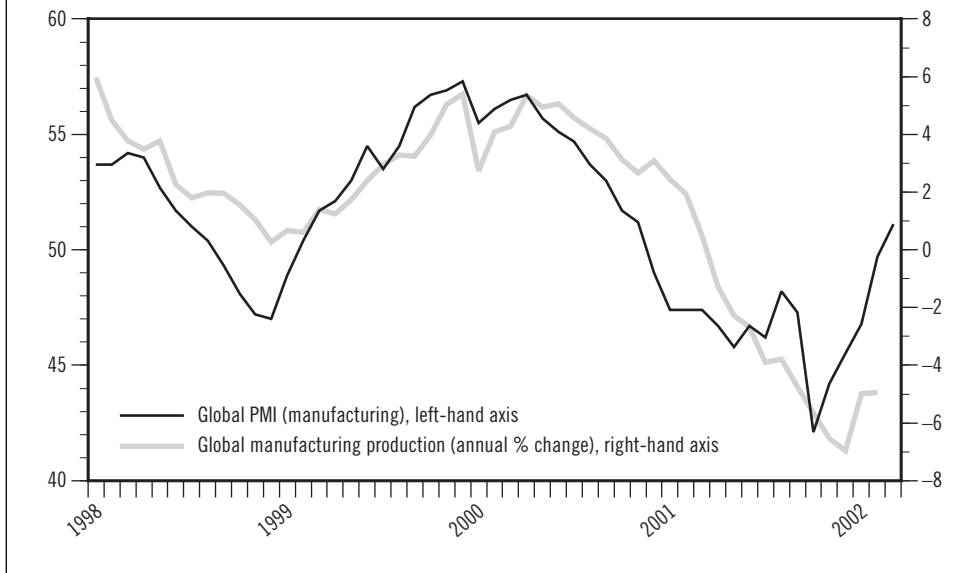
Fifth, although the various national PMI surveys are produced by a number of different organizations, the methodology used is basically identical for each country.

The Global PMI

The standardization of PMI methodologies not only means that the data are easily compared internationally, it also means that the PMI data can be combined together using appropriate weights derived from each country's contribution to global GDP to provide global economic indicators.

These indicators can be produced early each month, relating to the previous month, and will reflect economic

Figure 2: A global PMI-based indicator of world manufacturing output



conditions in countries representing approximately 77% of global GDP. Separate data will be produced for global manufacturing and service sectors, providing time series for output, order books, employment, prices and many other variables. Data on global manufacturing output are shown in Figure 2. These sectoral data will also be weighted together to form a Global PMI-based GDP indicator.

Summary

PMI surveys have developed an unmatched track record of correctly anticipating economic growth and other key economic variables. The planned production and regular monthly publication of a Global PMI

data series will therefore provide economists and analysts with a powerful and reliable new tool to monitor global economic trends. Never before has such timely and comprehensive economic information been available.

For policy-makers, the Global PMIs will facilitate the early anticipation of turning points in the business cycle and allow more efficient monetary and fiscal policy judgement at national, multinational and global levels. For financial market analysts and the corporate sector, the PMIs will provide early indications of changes in comparable official economic data and allow more efficient asset allocation.

*For more information, visit
<http://www.ntc-research.com>*

